To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Brent Erickson

Sent: Tue 5/19/2015 1:01:45 PM

Subject: Special Announcement: Mr. Jonathan Wolfson to Receive the 2015 BIO George Washington

Carver Award

MAIL RECEIVED: Tue 5/19/2015 1:04:25 PM

Dear Paul,

The Biotechnology Industry Organization (BIO) is pleased to announce that we have named Solazyme CEO Jonathan S. Wolfson as the recipient of its 2015 <u>George Washington Carver Award</u> for innovation in industrial biotechnology. George Washington Carver was one of the founding fathers of the chemurgy movement, a branch of applied chemistry focused on manufacturing industrial products from raw agricultural materials. Industrial biotechnology is the modern-day equivalent of Carver's vision for chemurgy, and the award honors individuals for carrying on Carver's legacy.



Mr. Jonathan Wolfson

BIO is pleased to recognize Jonathan for his determination to provide solutions to some of today's greatest challenges in energy, nutrition and industrials. Just like George Washington Carver, Jonathan wants others to live better by having access to greener consumer products, healthier foods, better home and personal care products, and more sustainable, cheaper transportation fuel.

"Jonathan S. Wolfson's commitment to this industry matches that of George Washington Carver. The innovation he has demonstrated throughout his career makes him very worthy of the recognition attached to this award," said Joe Hrdlicka, Executive Director of the Iowa Biotechnology Association and sponsor of the 2015 award.

Wolfson will receive the award and give a brief talk at the upcoming <u>BIO World Congress on Industrial Biotechnology</u> in July in Montreal, Canada. A special selection committee chose Wolfson for his vision to take one of the smallest organisms in the world – microalgae – and use it to revolutionize some of the biggest industries in the world. Solazyme's revolutionary biotechnology platform enhances the oil-producing nature of microalgae at the cellular level to tailor-make amazing oil profiles that bring specific benefits to people and the planet.

The company's sustainable algal oils can replace petroleum-based and other unsustainable oils widely used in many industries today. Solazyme's algal oils have a lower carbon footprint than nearly all natural oils—including fossil fuels, palm, palm kernel, and soybean. The company is able to turn plant-based sugars—like sucrose from sugar cane and dextrose from corn—into entirely new sources of healthy food ingredients in a matter of days.

Wolfson has positioned Solazyme to succeed across a variety of vertical industries – from skincare to food, from industrials to liquid fuels – with many of the world's leading brands lining up to codevelop and purchase Solazyme oils, making the company first to market with algae-based ingredients for chemicals and biofuel.

In November of 2014, Solazyme was awarded the Presidential Green Chemistry Challenge for its groundbreaking microalgae-based renewable oils and ingredients platform. This was the first time that an algae company has been recognized for this honor.

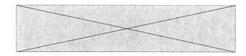
A graduate of New York University (NYU) School of Law and Stern School of Business, Wolfson recognizes the value of education in propelling biotechnology innovation. In his tenure at Solazyme, he has overseen the filing of the company's 300-plus technology patents.

With the support of the <u>Iowa Biotech Association</u>—the award sponsor—BIO will present Mr. Wolfson with the George Washington Carver Award during the Monday, July 20th plenary lunch session at the <u>2015 BIO World Congress on Industrial Biotechnology located in Montreal, Canada</u>. To view the details on the plenary program, <u>click here</u>.

Past recipients of the Carver Award are Dr. Patrick Gruber, CEO of Gevo, Inc., in 2008; Charles O. Holliday, Jr., Chairman of the Board of DuPont in 2009; Gregory Stephanopoulos, The Willard Henry Dow Professor of Chemical Engineering at Massachusetts Institute of Technology in 2010; Feike Sijbesma, CEO of Royal DSM in 2011; Steen Riisgaard, President and CEO of Novozymes in 2012; Dr. Jay Keasling, Hubbard Howe Jr., Distinguished Professor of Biochemical Engineering at the University of California, Berkeley in 2013; and Ellen Kullman, CEO & Chair of the Board, DuPont in 2014.

I encourage you to join me in congratulating Mr. Wolfson for his contributions, dedication and commitment to the advancement of the industrial biotechnology field.

Regards,



Brent Erickson
Executive Vice President
Industrial and Environmental Section
Biotechnology Industry Organization

www.BIO.org/ind

Follow me on Twitter (@BErickson BIO)



This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

Update your preferences | Unsubscribe

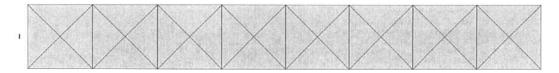
To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

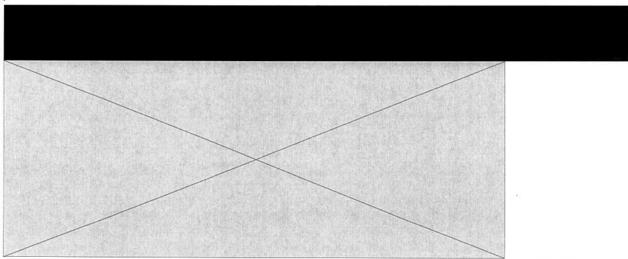
From: 25x'25

Sent: Fri 5/15/2015 3:49:55 PM

Subject: Weekly REsource for May 15, 2015 MAIL_RECEIVED: Fri 5/15/2015 3:50:03 PM

Having trouble viewing this email? Click here





The 25x'25 Weekly REsource is a digest that features items from this week's blog site, the <u>25x'25</u> REsource, and other sources. The <u>25x'25</u> REsource and the 25x'25 Weekly REsource complement the role of <u>25x'25</u> as an objective and trusted source of information on agricultural and forestry renewable energy and climate solutions. Also, visit us at our <u>Facebook page</u> and follow us on <u>Twitter</u>.

Our Featured Blog

News of Note

Headlines of Note

Upcoming Events

Our Featured Blog

Energy Storage, Renewable Energy Drive Mutual Growth

News of Note

It's not surprising that the recent announcement from Elon Musk touting Tesla's new "Powerwall" battery has drawn considerable attention from the media and from the MANOUS PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY PROPERTY BENEFIT TO THE ENERGY PROPERTY BENEFIT TO THE ENERGY PROPERTY BENEFIT TO THE ENERGY IS STORY IN THE ENERGY IN THE

V by 2022 - from an initial base of only 0.34 GW ore...

The Senate Energy Committee started the process with a hearing Thursday on nearly two dozen bills that address energy infrastructure. Another hearing next Tuesday will be held on energy supply legislation, while a hearing on June 4 will address federal agency accountability and reform legislation. The committee held a hearing two weeks ago on another major part of the bill that deals with energy efficiency.

Sen. Lisa Murkowski (R-AK), who chairs the committee, is working closely with the panel's top Democrat, Sen. Maria Cantwell (WA), in the hopes of drafting a bill that would readily be signed by President Obama. If successful, it would be the first major energy package since the Energy Independence and Security Act signed into law by President George W. Bush in late 2007.

Murkowski has gotten the agreement from committee members to stay away from controversial issues like the Renewable Fuel Standard, lifting the ban on oil exports, and the XL pipeline, a strategy aimed at smoothing passage of the sought-after energy plan. House Energy Committee Chairman Fred Upton (R-MI) said he too would keep Keystone XL out of the House version of the package, though he has not addressed the oil export issue.

Headlines of Note

Reths or mittees their sure 15 to their respective floors. But they say they believe that compromises can be reached to assure the measure has full bipartisan support.

At the Gas Pump, U.S. Biofuel Lobby Scores a Point against Big Oil

<u>பேசை (organization) நின்ற இது நிறியார் இது அதிய மாற்ற இது அதியார் இது நிறியார். இது நிறியார் இது நிறியார். இது</u>

Effective Govt. Policies Would Ease Shift to Renewable Energy, Conference Told

by setting up a DOE program focused on grid-scale storage. The program would also by Malide Argustration program would also microgrid technology.

Report: Iowa Wind Can Help Nearby States Meet EPA Emissions Standards

Rural Electric Cooperatives Consider Solar Options

Another Democrat on the committee, Sen. Ron Wyden (OR) has drafted a bill that would establish to the committee, Sen. Ron Wyden (OR) has drafted a bill that would establish the committee of the

Why Energy in 2025 will be Almost Unrecognizable

Meanwhile, a more aggressive energy bill - and partisan - was introduced by seven Democrats headed by Sens. Tom Udall (NM) and John Markey that would set a national Bippercent Generality Electricity Standard (RES).

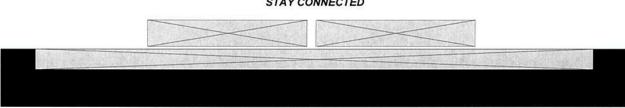
Florida Food First Handian Morkshop Set for the top office a certain percentage of their electricity from renewable resources, including wind, solar, biomass and others. It would set an 8-percent requirement by 2016, followed by gradual and achievable increases thereafter to meet the 30 percent by 2030 goal. A Florida Energy Systems Consortium (FESC) Workshop is set for May 20-21 at the Orlando Airport Marriott Lakeside Hotel. The workshop showcases pioneering research, education and outreach programs that focus on Florida's sustainable energy future.

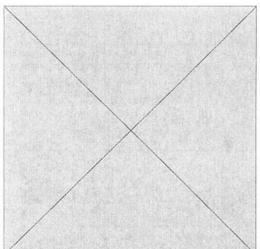
More than half of the states already have renewable generation standards with specific timelines and target standards, and the legislation would not preempt stronger standards already implemented by states.

25x'25 Sponsors

isors say a national RES would save consumers money, reduce pollution and nation diversity its energy sources, all while establishing U.S. leadership in ergy production

STAY CONNECTED





Ads appearing on Washington-area media outlets' and television stations are painting the issue as one in which the White House has to choose between rural farmers and oil companies. Fuels America says reducing the blending requirements will "reward the oil industry for refusing to fulfill its obligations under the policy."

While the ads urge consumers to "Tell EPA NOT to side with the oil industry," the proposed standards were sent last week by EPA to the White House Office of Budget Management for review. The proposals are to be announced by June 1, and then finalized by Nov. 30. During a media conference held earlier this week, Renewable Fuels Association (RFA) President Bob Dinneen acknowledged, "This is really the White House's call."

Back in November 2013, the EPA issued RFS blending mandates that severely cut back the amount of corn ethanol to be used in 2014, while holding the biodiesel levels the same as set for 2013, despite the fact the nation's biodiesel industry produced nearly 50 percent more of the fuel.

The agency said the rollback was in response to a so-called "blend wall" - a gasoline market already saturated by 10-percent blends of ethanol (E10) and few outlets available for selling higher blends, including E15 and E85.

But the proposals drew heated opposition from the RFA and other biofuel value chain interests, leading to the creation of Fuels America. By citing an oversupply of biofuels, EPA is violating EISA provisions that call for the oil industry to meet the growth in ethanol and biodiesel, advocates say.

EPA failed to come to any decision on the 2014 rule and, in response to a lawsuit filed by the oil industry seeking certainty under RFS, said new proposals for the rules for last year, this year and next year would be issued by June 1.

"Instead of arriving at a rule that is based on the renewable fuel industry's ability to supply fuel to consumers as Congress intended, oil companies would have the EPA block competition from renewable fuel on the oil industry's behalf," Fuels America said in a statement on its website.

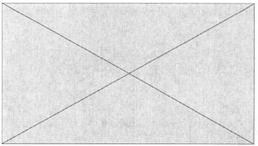
Biofuel interests sent a letter to the White House last week asking for a "high-level" meeting to discuss the pending RFS proposals, claiming that "the supposed lack of infrastructure to distribute larger volumes of ethanol above and beyond the 'blend wall' is not a circumstance that EPA may take into consideration when evaluating whether a waiver is justified.

"In fact," the letter said, "the escalating volume requirements of the RFS were meant to drive investment in the installation of new infrastructure that will enable larger quantities of renewable fuels to be distributed to consumers."

The letter also said the EPA proposal to reduce blending requirements has put a freeze on some \$13.7 billion in investment in advanced biofuels, noting that "not a single additional commercial scale cellulosic ethanol plant has selected a site in the United States since the EPA's November 2013 announcement."

Report Says Push for Clean Energy Only Way to Meet Global Climate Goals

A concerted push for clean-energy innovation is the only way the world can meet its climate goals, the International Energy Agency (EIA) said in its recently-released flagship energy technology report.



The report, Energy Technology Perspectives 2015

(ETP 2015), shows that despite a few recent success stories, clean-energy progress is falling well short of the levels needed to limit the global increase in temperatures to no more than 2 degrees centigrade. Moreover, it will be challenging for the world to meet its climate goals solely through the UN negotiation process that is expected to yield an agreement this December in Paris.

That leaves the development and deployment of new, ground-breaking energy technologies as key to mobilizing climate action, and the report urges policymakers to step up efforts to support them.

"The stakes are high for the energy sector, but it is also no stranger to profound technological change." said IEA Executive Director Maria van der Hoeven. "An incredible chain of innovations in the energy sector has been at the vanguard of social and economic transformation for over a century, and it is exciting to see the progress being made by solar panels and fuel economy improvements for passenger cars today, to name but two."

However, she warned, governments cannot be complacent.

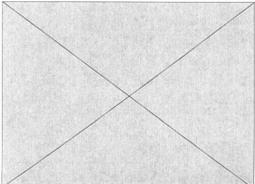
"We are setting ourselves environmental and energy access targets that rely on better technologies," she said. "Today's annual government spending on energy research and development is estimated to be \$17 billion. Tripling this level, as we recommend, requires governments and the private sector to work closely together and shift their focus to low-carbon technologies."

The report points out that for every dollar invested in the clean-energy technologies that will meet the 2-degree-C goal, nearly three dollars in fuel costs are avoided by 2050.

To access a free executive summary of the IEA report, click HERE.

Ten Things You Didn't Know about Hydropower

In the wake of a major release on the status of the U.S. hydropower sector and its potential to further contribute to meeting the nation's energy needs, the DOE issued a list of 10 facts about the widespread, sustainable power source.



10. Hydropower is one of the oldest power sources on the planet, generating power when flowing water spins a wheel or turbine. It was used by farmers as far back as ancient Greece for mechanical tasks like grinding grain. Hydropower is also a renewable energy source and produces no air pollution or toxic byproducts. Learn more about the history of hydropower.

- 9. When most people think of hydropower, they imagine the Hoover Dam a huge facility storing the power of an entire river behind its walls but hydropower facilities can be tiny too, taking advantage of water flows in municipal water facilities or irrigation ditches. They can even be dam-less," with diversions or run-of-river facilities channeling part of a stream through a powerhouse before the water rejoins the main river.
- 8. Niagara Falls was the site of the country's first hydroelectric generating facility built in 1881 when Charles Brush connected a generator to turbines powered by the falls and used the electricity to power nighttime lighting for visiting tourists. America's first commercial hydropower facility was built in 1882 in Appleton, WI powering lighting for a paper mill and multiple homes.

- 7. Every state uses hydropower for electricity, and some states use a lot of it. Over 70 percent of Washington State's electricity comes from hydropower, and 11 states get more than 10 percent of their electricity from hydropower.
- 6. Hydropower costs less than most energy sources. States that get the majority of their electricity from hydropower, like Idaho, Washington and Oregon, have energy bills that are lower than the rest of the country.
- 5. Hydroelectricity provides about seven percent of the electricity generated in the United States and about half of the electricity from all renewable sources, says the DOE's Energy Information Administration.
- 4. Some hydropower facilities can quickly go from zero power to maximum output, making them ideal for meeting sudden changes in demand for electricity. Because hydropower plants can dispatch power to the grid immediately, they provide essential back-up power during major electricity disruptions such as the 2003 blackout that affected the northeastern states and southern Canada. For a report on other services hydropower can provide, click <u>HERE</u>.
- 3. Another type of hydropower called pumped storage works like a battery, storing the electricity generated by other power sources like solar, wind, and nuclear for later use. It stores energy by pumping water uphill to a reservoir at higher elevation from a second reservoir at a lower elevation. When the power is needed, the water is released and turns a turbine, generating electricity.
- 2. Devices at dams can help fish and other wildlife move freely around dams and between sections of rivers. Fish ladders and fish elevators are just some of the techniques used to help fish migrate.
- 1. Dams are built for a number of uses in addition to producing electricity, such as irrigation, shipping and navigation, flood control or to create reservoirs for recreational activities. In fact, only 3 percent of the nation's 80,000 dams currently generate power. An Energy Department-funded study found that 12 gigawatts of hydroelectric generating

capacity could be added to existing dams around the country. View the <u>full report</u> and the <u>interactive map</u> on the energy potential of non-powered dams.

Participation Guide Available for National Bioenergy Day Coming in October

Organizers of the third annual National Bioenergy Day scheduled for October are beginning now to prepare for the nationwide event this fall, making available a participation guide that will help participants brainstorm and plan for involvement in the day.

Oct. 21, which falls in the middle of Forest Products Week, will bring together again this year bioenergy supporters across United States and Canada who will showcase how their involvement in bioenergy helps their communities.

The <u>2015 National Bioenergy Day Participation Guide</u>, which was created in partnership with the U.S. Forest Service, offers planning checklists and timelines, as well as template materials.

Last year, private sector, non-profit organizations, academic institutions and federal and state government offices contributed to nearly 50 events - doubling the size of NBD 2013 - in more than 20 states, plus Canada, to raise awareness about bioenergy and its environmental and economic benefits. Several events featured collaborations by the U.S. Forest Service, local or state governments, universities and bioenergy businesses in the surrounding areas.

Bioenergy refers to an industry whose companies produce electricity and heat generated from wood and other organic materials. According to the DOE's Energy Information Administration, in 2013, approximately 23 percent of all renewable energy

consumed was from wood - more than wind and solar combined and second only to hydroelectric energy.

Agriculture Secretary Tom Vilsack has supported bioenergy's role in protecting the health of forests on federal lands.

"Renewable wood energy is part of the Obama administration's 'all of the above' energy strategy," the secretary said last fall. "The Forest Service works with its partners to support the development of wood energy projects that promote sound forest management, expand regional economies and create new rural jobs."

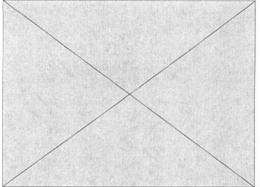
National Bioenergy Day sponsors last year included the Biomass Power Association, U.S. Forest Service, Plum Creek, Pellet Fuels Institute, U.S. Industrial Pellet Association, Biomass Thermal Energy Council and Biomass Magazine.

"We are excited about National Bioenergy Day this year and look forward to expanding participation even more than last year," said Carrie Armand, vice president for external affairs for USA Biomass. "This year, we encourage participants to emphasize the economics of bioenergy, especially the many jobs created and supported by the making energy from organic materials."

For more information on National Bioenergy Day, go to http://www.usabiomass.org/.

Research Studies Bioenergy Feedstock/Vegetable Double-Cropping

Using double-cropping systems to grow biofuel crops in the same fields as vegetables can produce reasonable yields of both, according to new <u>research</u> from the University of Illinois recently published in *Industrial Crops and Products*.



Researchers note that much attention has been given to dedicated, perennial bioenergy crops to meet the revised Renewable Fuel Standard mandating production of 36 billion gallons of biofuel by the year 2022. Even so, concern remains over a need to convert much U.S. crop land, which would include food crops, to land for perennial energy crops in order to meet that demand.

Researchers understand that biomass feedstocks will need to come from many different sources, including crop residues, forest residues and municipal waste, for example, said Marty Williams, a University of Illinois crop scientist and ecologist with the USDA-Agricultural Research Service. The use of double-cropping systems - a winter annual biomass crop is grown then harvested in the spring, followed by a summer annual crop - has been suggested as an additional option.

Knowing that many large-seeded vegetables in the Midwest must be planted later than agronomic crops into warmer soils, Williams looked into the possibility of developing a bioenergy feedstock/vegetable double-cropping system, noting that no such system had been developed and tested yet.

"Some vegetables have relatively short growing seasons, too. Rather than the standard fallow period for certain vegetables, what about integrating a bioenergy crop as a part of a double-cropping system?" Williams said.

Williams chose a vegetable crop popular in the state of Illinois, pumpkins, to be used in the double-cropping system study.

"We took a fairly simplistic look at comparing this bioenergy/vegetable double-cropping system with traditional vegetable production using processing pumpkin," Williams

explained. "Illinois leads the nation in pumpkin production, providing some 90 percent of the processing pumpkin in the United States."

Field trials were conducted over three environments. During the study, Williams compared crop productivity and weed communities in four different pumpkin production systems, varying in tillage, cover crop, and bioenergy feedstock/pumpkin double-cropping. A fall-planted rye (Secale cereale) mix was used as the biomass feedstock.

"In the end, winter rye may not be the best feedstock crop to use," he explained. "It was more of a model crop for us for our system. It grows well and has several desirable traits. Seed is relatively inexpensive and the plant is hardy."

Interestingly, the researchers saw pumpkin yields in the double-cropping system were comparable to conventional pumpkin production. However, the biomass feedstock also yielded an average of 4.4 tons per acre of dry biomass prior to pumpkin planting.

"We saw a theoretical yield of 349 gallons of ethanol per acre, and a higher farm gate value than typical pumpkin production," Williams said.

"It looks promising," he added. "The biomass yield wasn't as high as something like Miscanthus, but we're producing feedstock and not taking land away from food production. Moreover, the cropping systems were not optimized, such as for soil fertility, so our economic estimates are likely conservative."

The program features internationally renowned speakers, as well as presentations and posters highlighting innovative work leading to alternative energy strategies, improved energy efficiencies, workforce development, and expanded economic development for Florida.

Buck Martinez, Senior Director Office of Clean Energy, Florida Power & Light Company,

who will open the workshop on May 20 with a Welcome address followed by a host of panel sessions and discussions by prominent energy faculty and industry leaders from across the nation, including:

- · Amy L. Stein, Professor, UF Levin College of Law
- · Meera Bagati , Sr. Economist, NextEra Energy Resources, LLC
- · Todd Janca, Crowd Energy
- · Jim Noh, University of California, Berkeley
- · Ramon Gonzalez, Professor, Chemical & Biomolecular Engineering, Bioengineering, Director, Energy and Environment Initiative (EEi), Rice University
- · Jim Payne, Technology Project Officer, Office of Energy Efficiency and Renewable Energy, US DOE
- · Ilic Marija, Professor of Electrical & Computer Engineering and Engineering & Public Policy, Carnegie Mellon University

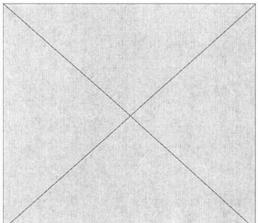
A free grant writing workshop led by Ben Rowland, national expert in proposal development and delivery, will conclude the workshop on May 21, 2015.

For more information, click HERE.

Click <u>HERE</u> to register.

Webinar on Achieving Biomass Sustainability Goals Thursday

Stakeholders are invited to attend the latest live webinar - Achieving Sustainability
Goals with Biomass - set for Thursday, May 21, at 2 p.m. EDT. The hour-long event is sponsored by Integrated Biomass Supply Systems (IBSS), North Carolina State University-Extension Forestry, Southern Regional Extension Forestry, Texas A&M Agrilife Extension and the 25x'25 Alliance.



Sustainable biomass resources have the potential to supply increasing amounts of heat and power. While the most effective and sustainable biomass resources will vary from region to region, the efficiency of converting biomass to its final application, be it for biopower, biofuels, bioproducts, or heat, will be key.

The Biomass Fuel Project was established in 2003 in response to the goal set by the University of Iowa to achieve 40 percent renewable energy consumption by the year 2020. The Biomass Fuel Project aims to: 1. Assess and improve the environmental impacts of new and existing biomass crops and fuels 2. Create and improve agricultural and supply chain practices related to cropping, processing, and burning of biomass for the use of biopower 3. Open new research opportunities in production, characterization, testing, and use of biomass fuel sources 4. Develop and publish standards for biomass testing and combustion characterization of potential biomass fuels and fuel blends 5. Stimulate production of new energy crops be researching, piloting, and test burning alternative biorenewables.

The project will increase the university power plant's renewable fuel consumption and reduce the use of coal. REPREVE Renewables LLC, has been chosen to provide the agricultural and business development services and will plant and establish giant miscanthus for use as the biomass fuel.

The webinar will take a look at REPREVE's bioenergy crop production system, the University of Iowa's Biomass Fuel Project and additional opportunities to expand the bioeconomy. <u>Learn more here...</u>

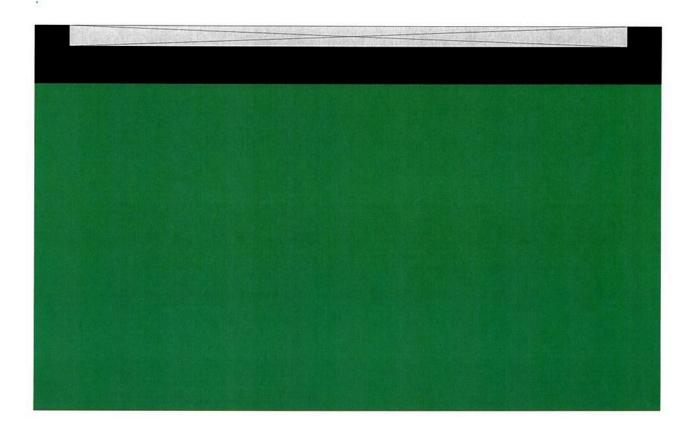
Presenters include Ingrid Gronstal-Anderson, compliance specialist at the University of Iowa, and Travis Hedrick, director of operations, Repreve Renewables.

Encouraged to participate in the webinar are foresters, land owners, natural resource professionals, policy makers, bioenergy professionals, engineers, researchers and policy makers.

Education credits from the Society of American Farmers have been approved or applied for. For instructions on how to obtain continuing education credits, click HERE.

For instructions on how to join the webinar, click <u>HERE</u>. Participants are asked to join the session 15 minutes prior to the 2 p.m. EDT start.

Other events of interest to 25x'25 partners and other renewable energy stakeholders can be found by clicking HERE.





This email was sent to argyropoulos.paul@epa.gov by info@25x25.org

Update Profile/Email Address | Rapid removal with SafeUnsubscribe™ | Privacy Policy.

25x'25 Alliance 1430 Front Ave Lutherville MD 21093

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

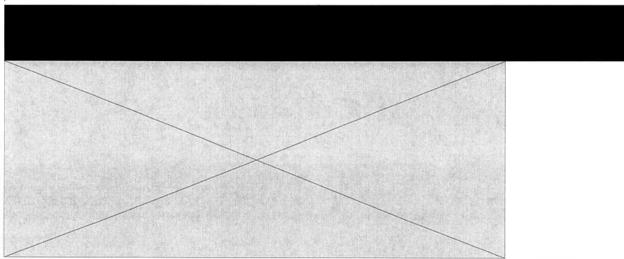
From: 25x'25

Sent: Fri 5/8/2015 3:54:54 PM

Subject: Weekly REsource for May 8, 2015 MAIL_RECEIVED: Fri 5/8/2015 3:55:02 PM

Having trouble viewing this email? Click here





The 25x'25 Weekly REsource is a digest that features items from this week's blog site, the 25x'25 REsource, and other sources. The 25x'25 REsource and the 25x'25 Weekly REsource complement the role of 25x'25 as an objective and trusted source of information on agricultural and forestry renewable energy and climate solutions. Also, visit us at our Facebook page and follow us on Twitter.

Our Featured Blog

News of Note

Headlines of Note

Upcoming Events

Our Featured Blog Hawaii Setting a High Bar for Renewable Energy

News of Note

A bill approved by the Hawaii legislature has set the island state on its way to becoming the first in the nation to adopt a 100-percent Renewable Portfolio Standard (RPS). It's a heady goal that just a few years ago, may have seemed overly ambitious. But the growth recovery archard recovery and is expected to be signed into law by Gov. David Ige, increases the current goal from 15 percent by the end of this year, to 100 percent by the end of 2045 (Hawaii currently meets 21 percent recovery and support the state of the policy are account in the policy are as a proving a first or the policy are as a proving a first or the policy are as a proving a first or the policy are as a proving a policy makers are still in the early stages of our pursuit of an energy strategy that makes broad use of sustainable alternatives. It is critically important for stakeholders to keep reminding policy makers

nomic, security and environmental benefits available

EPA has reportedly sent to the White House Office of Management and Budget its proposals for biofuel blend requirements under the Renewable Fuel Standard (RFS). The administration is expected to announce the proposals by June1. They are to be finalized by Nov. 30.

EPA first proposed back in November 2013 RFS requirements for 2014. But the amounts, which were significantly lower than established by law when the RFS program was updated by Congress in 2007, drew harsh reaction from biofuel interests as a step back from federal commitment to the industry, creating policy uncertainty and discouraging investment in advanced biofuels.

In a <u>letter</u> to the White House requesting the meeting, the groups tell the president, "Your decision on this matter has consequences far beyond simply setting the fuel mix for the next two years. This decision comes at a critical juncture for our industry, as well as for your legacy on advanced biofuels and climate change."

Abengoa Bioenergy, American Coalition for Ethanol, Association of Equipment

Manufartines Signal Corn Growers Association, Poet and the Renewable Fuels

Association.

2015 RPS State of Play

Bassolor Programma Red Opipion unity to preserve the by the RPS of the parties in Restaurance of dollars to make our country the undisputed global leader in biofuels," the groups wrote.

Programma the programma that programma the programma the programma that programma the progra

NBB's Steckel Says Biodiesel Industry Poised to Handle Increased RFS Volume Requirements

But, the letter states, "18 months ago, your administration unilaterally and unwisely blanched states and participated blanched b

Shared Solar Could Open Path to 100 Percent PV Market Penetration

The biofuel groups said not only did EPA's proposal called for less renewable fuel and finds in the EPA's approach, which undermined the confidence of investors in the future of advanced biofuels, and in the said and the confidence of investors in the future of advanced biofuels, and in the said and the confidence of investors in the future of advanced biofuels, and in the said and the confidence of investors in the future of advanced biofuels.

The New Normal? Renewables, Efficiency, and 'Too Much Electricity'

They said BiAcompanies to the the tall find in the line of the supply and distribution contracts, "and have a well-documented history of using those contracts to make it difficult or impossible for retailers to dispense renewable fuel."

Upcoming Events

The RFS, they said, "was intended to create the economic incentive for oil companies to invest in renewable fueling infrastructure. Instead of holding the oil industry accountable for the law, the EPA signated that the oil companies' failure to provide the necessary infrastructure would be grounds for waiving those obligations."

North Dakota Public Service Commission Chair Julie Fedorchak will offer remarks as Plante the growing Misist chart Werken too take to take yet rebtwen action to Alliance for Renewable Energy (NDARE) from 1 p.m. to 4:30 p.m. this Tuesday, May 12, at the ND Association of Rural Electric Cooperatives Ulmer Center in Mandan. 25x'25 Sponsors

d news is that final chapter on your energy and climate legacy has not yet been the groups tell the president. "There is still time to put the program back on

STAY CONNECTED

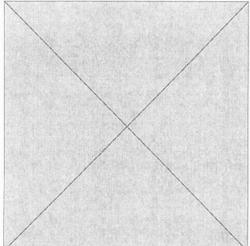
BIO has tracked the advanced biofuel industry's development and construction of biorefineries since 2009 and found that, to date, the industry has invested more than \$5 billion in first-of-a-kind demonstration and commercial-scale biorefineries around the world..

The analysis finds that as of April 2015, there are five commercial cellulosic biorefineries with a combined capacity of more than 50 million gallons within the United States and registered to meet the goals of the RFS, along with several pilot and demonstration plants. Additional commercial biorefineries are under construction.

The advanced biorefineries employ 5,125 scientists, engineers and operations personnel. Construction of the facilities has created an additional 8,600 fulltime positions over the past five years.

Kansas Wind Industry, Lawmakers Reach Deal on Future Renewables Policy

An agreement that would convert Kansas's Renewable Portfolio Standard (RPS) mandate to a voluntary goal has been reached among lawmakers and the state's wind industry. In exchange, a proposed 4.3-percent excise tax on wind energy production has been dropped.



Wind industry sources concede the compromise was needed to fend off growing efforts begun in the legislature in 2012 to fully repeal the RPS, which requires 20 percent of the state's electricity come from renewable energy by

2020. They note the state already exceeds the existing RPS, with more than 21 percent of its power needs coming from wind energy generated by 3,000 megawatts (MW) of capacity since the RPS was adopted in 2009. Furthermore, another 1,270 MW in wind projects is under construction or subject to power purchase agreements. And, they said, the elimination of the excise tax proposal maintains the state's status as strong site for wind investment.

The compromise also requires new wind facilities to pay property tax, though existing facilities and those under construction will retain their property tax exemption. In addition, new wind facilities built after those currently in the pipeline will not pay property taxes until 2025.

Kansas is one of 29 states with a mandatory RPS, but if the conversion legislation is adopted, the state will join eight others with voluntary goals. Last year, Ohio froze its renewable energy and energy efficiency requirements. Earlier this year, lawmakers in West Virginia repealed that state's mandate, though it was not counted as one of the 29 RPS laws because it could have been met entirely without renewable energy (besides renewables, the eligible resources included "advanced coal technology," coal bed methane, natural gas, and other fossil-fuel based energy sources).

Gov. Sam Brownback, a chief architect of the compromise, said the growth of wind energy has "been a tremendous investment in the state of Kansas," adding that the agreement "further solidifies and stabilizes the policy environment so that that investment can move forward."

Jeff Clark, executive director of the Wind Coalition, which played a principal role in reaching the agreement, said the deal's stabilization of tax policy is a positive step.

"Tax policy in Kansas has also played a substantial role in the market's development," he said. "By addressing the market anxieties caused by uncertain tax policy in Kansas, this agreement allows wind energy investment and development to continue."

Susan Sloan, vice president of state policy at the American Wind Energy Association (AWEA), said in a <u>blog</u> posted this week that the RPS in Kansas was so successful that it spurred more than ample wind energy to meet its standard. While the legislation is

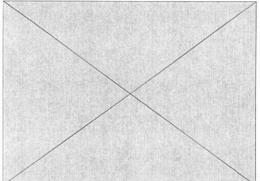
transitioning the RPS to an energy goal, she agreed that "it also clarifies several tax policy provisions to give wind investors certainty about continuing to build projects in the state."

She said that while mandatory standards are generally more successful as states with the standards get the benefits of continuing business, "Kansas is a unique case." The state's RPS "has brought low priced power, jobs and rural enrichment," noting that wind energy provides as many as 12,000 jobs in Kansas and drawn some\$8 billion in investment in the state. Also, wind developers make payments of over \$10 million a year to Kansas landowners.

While legislative efforts are underway to challenge the renewable portfolio standards in North Carolina and Texas, six states - California, Illinois, Michigan, Minnesota, New York and Vermont - are seriously debating an increase their RPS this year.

Co-ops Rank High on SEPA's Top 10 List for 2014

Electric cooperatives are among the national leaders in providing solar power, according to <u>rankings</u> compiled by the Solar Electric Power Association.



Three co-ops rank among the top 10 among all coops, municipal and investor-owned utilities in solar watts per customers, the Solar Electric Power Association reported, while a fourth is a major contributor.

A Selmer, TN-based co-op, Pickwick Electric Cooperative, ranked at the top of the

association's Utility Solar Markets Snapshot released late last week, providing 1,679 watts of solar generation per meter in 2014.

Participating Pickwick members pay a \$4 monthly premium for 150 kilowatt-hour blocks of solar generated electricity, about 12 percent of the power needed for an average-sized home.

"The achievements of small cooperatives such as Pickwick underline solar energy's momentum across the United States," said Julia Hamm, president and CEO of the solar association.

Farmers Electric Cooperative of Kalona, IA, ranked second among all utilities with 1,158 watts per member. The co-op developed a 750-kilowatt solar farm in 2014 and meets 20 percent of its demand with solar and wind generation.

"Solar power is helping us keep our members' dollars local and that has the backing of the co-op's board," said Warren McKenna, CEO and general manager of Farmers Electric.

Dixie Power, in St. George, UT, a municipal utility that joined in building a facility allowing residents to access power through SunSmart, a community solar farm, ranked third on the list. Kauai Island Utility Cooperative, based in Lihue, HA, was fourth in the rankings with 503 solar watts per meter.

"We make it easy for our members to install rooftop solar," said David Bissell, president and CEO. The co-op's two 12-megawatt solar arrays added in 2014 are the largest in Hawaii.

Excluding investor-owned and municipal utilities, the Hawkeye Rural Electric Cooperative in Cresco, IA, and the Marana, AZ-based Trico Electric Cooperative were fourth and fifth in watts per customers in the co-op sector behind Pickwick, Farmers Electric and Kauai Island.

"We also have a 227-kw community-supported solar demonstration project on the property adjacent to the co-op's office," said Monica Pugno, Trico's communications services specialist. "Trico members can purchase the energy the system generates."

Ethanol Industry Contributed \$2.34 Billion to Minnesota's Economy In 2014

Minnesota's ethanol industry accounted for \$2.34 billion of the state's gross domestic product (GDP) in 2014, according to a new <u>study</u> by ABF Economics.

The study, which examines the ethanol industry's economic impact in Minnesota in 2014, concludes that the industry generated \$7.6 billion in gross sales for Minnesota businesses and supported 18,630 full time jobs in the state last year. This in turn generated \$1.74 billion in household income in Minnesota in 2014 as well as \$132 million to state and local government tax rolls.

"This study by ABF Economics clearly shows how significant the ethanol industry is to Minnesota's economy, especially in rural areas where it supports other industries," said Tim Rudnicki, executive director of the Minnesota Bio-Fuels Association.

The study was prepared by ABF Economics for the Minnesota Bio-Fuels Association.

For the study, ABF Economics estimated the impact of the ethanol industry on Minnesota's economy by applying expenditures by the relevant supplying industry to the final demand multipliers for value added output, earnings and employment.

"In this study, ABF used the IMPLAN (Impact Analysis for Planning) economic model to construct a model of the Minnesota economy including the sectors that support the ethanol industry, the links between them, and the level of economic activity," noted John Urbanchuk, managing partner for ABF Economics, in the study.

The IMPLAN model evaluated the gross output, value added (GDP), household earnings and employment generated by the ethanol industry in 2014.

In 2014, the study notes, Minnesota's 21 ethanol plants spent \$2.7 billion to produce 1.1 billion gallons of ethanol, 3.3 million tons of dried distiller's grains (DDGs) and 184 million pounds of corn oil.

The ethanol industry's expenditure included corn, industrial chemicals, electricity, natural gas, water, labor and services such as maintenance, insurance and general overheads. Spending for these goods and services represented the purchase of output of other industries that operate in Minnesota, ABF Economics said.

Jobs supported by the ethanol industry in 2014 included employment in ethanol production, agriculture, retail trade, healthcare, natural gas distribution, banking and finance, real estate, accounting, legal services, construction, wholesale trade and transportation.

The study also notes that a recent USDA study concluded that one ton of DDGs is the equivalent of 1.22 tons of feed consisting of corn and soybean meal.

As such, ABF Economics said, the 3.3 million tons of DDGs (a high-protein animal feed) produced by the industry last year was sufficient to meet the annual feed requirements of nearly 2.5 million beef and dairy cattle, or the entire inventory of cattle and calves in Minnesota.

"Thus, given the availability of DDGs from ethanol production, the livestock and poultry industry require less grain corn and soybean meal to feed the same number of animals and produce the same amount of meat and dairy products," it said.

MIT Report Cites Solar's Key Role in a Low-Carbon Future

Solar energy holds the best potential for meeting humanity's future long-term energy needs while cutting greenhouse gas emissions - but realizing this potential will require increased emphasis on developing lower-cost technologies and more effective deployment policy, says a <u>study</u> released this week by The MIT Energy Initiative (MITEI).

The study's chair, Richard Schmalensee, an economics professor at the MIT Sloan School of Management, said the study shows "our focus needs to shift toward new technologies and policies that have the potential to make solar a compelling economic option."

The study group presented its findings to lawmakers and senior administration officials in Washington this week.

The report, *The Future of Solar Energy*, reflects on the technical, commercial and policy dimensions of solar energy today and makes recommendations to policymakers regarding more effective federal and state support for research and development, technology demonstration and solar deployment.

Among its major themes is the need to prepare electricity systems, both technically and from a regulatory standpoint, for very large-scale deployment of solar generation, which tends to vary unpredictably throughout the day. To this end, the study emphasizes the need for federal research and development support to advance low-cost, large-scale electricity storage technologies.

The analysis finds that today's federal and state subsidy programs designed to encourage investment in solar systems should be reconsidered, to increase their cost-

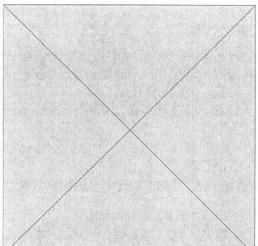
effectiveness, with greater emphasis on rewarding production of solar energy.

The group also recommends that state renewable portfolio standards, which are designed to increase generation of electricity from renewable resources, be brought under a unified national program that would reduce the cost of meeting set mandates by allowing unrestricted interstate trading of credits.

The study concludes by pointing to the urgent need for an ambitious and innovative approach to technology development, with federal research and development investment focused on new technologies and systems with the potential to deliver transformative system cost reductions.

USDA Funds Project to Conserve Irrigation Water, Produce Hydropower

USDA on Monday made \$1.8 million available for a Colorado project that will facilitate the conversion of farm flood-irrigation systems to more resource-efficient pressurized irrigation systems that will integrate some of the water for power.



The funding is being made available through the Regional Conservation Partnership Program (RCPP), the newest conservation tool of the USDA's Natural Resources Conservation Service (NRCS). The project funding is part of \$235 million in new federal grants nationwide that department officials say will spur innovation around water, soil and drought.

The project will be designed to pressurize the flow of water used to grow crops, generating hydropower, while, at the same time, delivering water more precisely to crops using sprinklers as opposed to flood irrigation techniques. Officials say that if successful, the new pressurized water system could be widely adopted and reduce much of the 85-percent share of water needed to support agriculture in Colorado and other western states.

Ag Secretary Tom Vilsack made the announcement at a signing ceremony in Denver for the Colorado Pressurized Small Hydropower Partnership Project, a 2015-funded project that focuses on water quantity resource concerns in the state.

The project, which is unique in its aim to conserve water while generating sustainable power, will combine the \$1.8 million in NRCS funding with local partner investments.

"USDA continues to look for new opportunities to address drought across the West. RCPP projects like this one in Colorado highlight the work the NRCS is doing with partners to increase efficiency while supporting production," Vilsack said.

In January, USDA delivered first round funding to 115 high-impact projects, including the Colorado project, across all 50 states and the Commonwealth of Puerto Rico.

Sean Gallagher, vice president of State Affairs for the Solar Energy Industries
Association; local and community solar planning expert Brian Ross; and Claudette
Reichel, Extension Housing Specialist at the LSU Ag Center.

For a complete agenda, click HERE.

To register for the workshop, click **HERE**. Space is limited.

Florida Energy Systems Consortium Workshop Set for May 20-21

A Florida Energy Systems Consortium (FESC) Workshop is set for May 20-21 at the Orlando Airport Marriott Lakeside Hotel. The workshop showcases pioneering research, education and outreach programs that focus on Florida's sustainable energy future.

The program features internationally renowned speakers, as well as presentations and posters highlighting innovative work leading to alternative energy strategies, improved energy efficiencies, workforce development, and expanded economic development for Florida.

Buck Martinez, Senior Director Office of Clean Energy, Florida Power & Light Company, who will open the workshop on May 20 with a welcome address followed by a host of panel sessions and discussions by prominent energy faculty and industry leaders from across the nation, including:

- · Amy L. Stein, Professor, UF Levin College of Law
- · Meera Bagati , Sr. Economist, NextEra Energy Resources, LLC
- · Todd Janca, Crowd Energy
- · Jim Noh, University of California, Berkeley
- · Ramon Gonzalez, Professor, Chemical & Biomolecular Engineering, Bioengineering,

Director, Energy and Environment Initiative (EEi), Rice University

- · Jim Payne, Technology Project Officer, Office of Energy Efficiency and Renewable Energy, US DOE
- · Ilic Marija, Professor of Electrical & Computer Engineering and Engineering & Public Policy, Carnegie Mellon University

A free grant writing workshop led by Ben Rowland, national expert in proposal development and delivery, will conclude the workshop on May 21, 2015.

For more information, click HERE.

Click <u>HERE</u> to register.

Achieving Sustainability Goals with Biomass

Stakeholders are invited to attend the latest live webinar - <u>Achieving Sustainability Goals with Biomass</u> - set for Thursday, May 21, at 2 p.m. EDT. The hour-long event is sponsored by Integrated Biomass Supply Systems (IBSS), North Carolina State University-Extension Forestry, Southern Regional Extension Forestry, Texas A&M Agrilife Extension and the 25x'25 Alliance.

Sustainable biomass resources have the potential to supply increasing amounts of heat and power. While the most effective and sustainable

biomass resources will vary from region to region, the efficiency of converting biomass to its final application, be it for biopower, biofuels, bioproducts, or heat, will be key.

The Biomass Fuel Project was established in 2003 in response to the goal set by the University of Iowa to achieve 40 percent renewable energy consumption by the year 2020. The Biomass Fuel Project aims to: 1. Assess and improve the environmental impacts of new and existing biomass crops and fuels 2. Create and improve agricultural and supply chain practices related to cropping, processing, and burning of biomass for the use of biopower 3. Open new research opportunities in production, characterization, testing, and use of biomass fuel sources 4. Develop and publish standards for biomass testing and combustion characterization of potential biomass fuels and fuel blends 5. Stimulate production of new energy crops be researching, piloting, and test burning alternative biorenewables.

The project will increase the university's power plant's renewable fuel consumption and reduce the use of coal. REPREVE Renewables LLC, has been chosen to provide the agricultural and business development services and will plant and establish giant miscanthus for use as the biomass fuel.

The webinar will take a look at REPREVE's bioenergy crop production system, the University of Iowa's Biomass Fuel Project and additional opportunities to expand the bioeconomy. <u>Learn more here...</u>

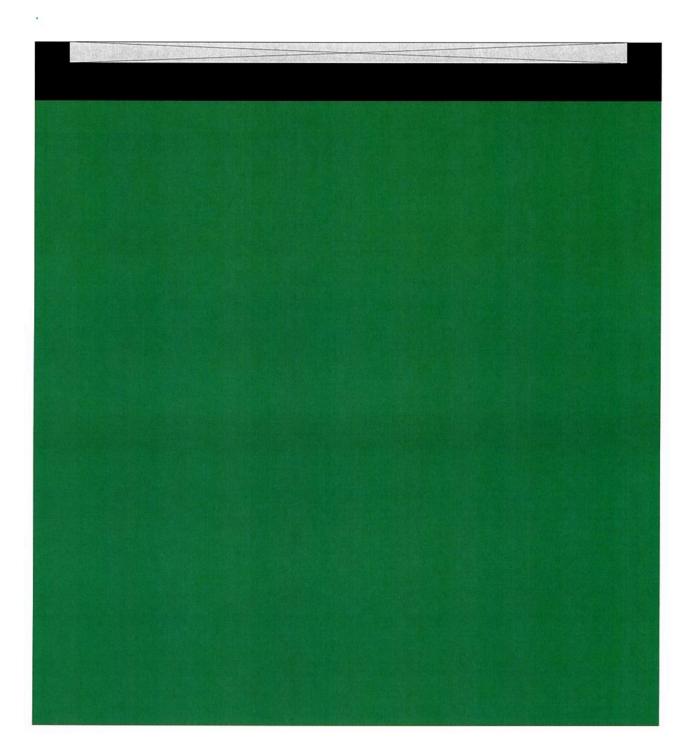
Presenters include Ingrid Gronstal-Anderson, compliance specialist at the University of Iowa, and Travis Hedrick, director of operations, Repreve Renewables.

Encouraged to participate in the webinar are foresters, land owners, natural resource professionals, policy makers, bioenergy professionals, engineers, researchers and policy makers.

Education credits from the Society of American Farmers have been approved or applied for. For instructions on how to obtain continuing education credits, click <u>HERE</u>.

For instructions on how to join the webinar, click <u>HERE</u>. Participants are asked to join the session 15 minutes prior to the 2 p.m. EDT start.

Other events of interest to 25x'25 partners and other renewable energy stakeholders can be found by clicking <u>HERE</u>.





This email was sent to argyropoulos.paul@epa.gov by info@25x25.org
Update Profile/Email Address | Rapid removal with SafeUnsubscribe
Privacy Policy.

25x'25 Alliance 1430 Front Ave Lutherville MD 21093

ŀ

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Jim Greenwood, BIO President & CEO

Sent: Wed 5/6/2015 5:21:39 PM

Subject: Looking forward to meeting you in Philadelphia

MAIL_RECEIVED: Wed 5/6/2015 5:22:42 PM

Dear Paul.

It's been an incredible and important year for our industry and I want to thank you for being a part of it. During the upcoming 2015 BIO International Convention, June 15 - 18 in Philadelphia, I will update you on our progress this year and invite you to join me in addressing areas of future opportunity. Each year I relish the chance to speak with so many of you during the Convention, it is that dialogue and the connections we all make there that help drive our industry forward.

The <u>agenda</u> we have developed for BIO 2015 is an opportunity to dive deep into the most pressing issues we face and to hear from thought leaders, policy makers and visionaries. It is a chance to make the connections using our <u>One-on-One PartneringTM System</u> that can change the course of your business. One of the reasons we chose Philadelphia is the strength of the northeast region's biotechnology ecosystem—not only in Pennsylvania, but also in New Jersey, Delaware, New York, and Massachusetts. This region is ripe with opportunity and will host 2,500 CEO's and 15,000 leaders next month. <u>View our attendee list and event brochure here</u>.

At this year's Convention, we also will be honoring the <u>everyday superheroes of biotechnology</u>. The men and women whose actions may not always make headlines, but who every day put in the hard work needed to move our industry forward in the lab, in our communities and in the halls of government. I hope you'll use this year's Convention as an opportunity to reach out to your industry peers, listen to their stories and share your own. While the paths that brought us all together may be dramatically different, many of the goals we have for our industry are the same.

As Christopher Reeve, a man who embodied the role of Superman on and off the screen, said, "So many of our dreams at first seem impossible, then they seem improbable, and then, when we summon the will, they soon become inevitable."

There is strength in numbers and what we can accomplish together is much greater than what we can accomplish on our own. Please join me next month in Philadelphia for BIO 2015. You may visit this link to register today.

Sincerely,

Jim

James C. Greenwood President & CEO Biotechnology Industry Organization (BIO) 1201 Maryland Avenue SW, Suite 900 Washington, DC 20024 202.962.6655



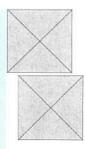
This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009.
For more information click here. Update your preferences
Unsubscribe | Unsubscribe via email

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Wendy Siminski

Sent: Tue 5/5/2015 6:33:58 PM

Subject: Don't Miss the Largest Biotech Career Fair MAIL_RECEIVED: Tue 5/5/2015 6:39:34 PM









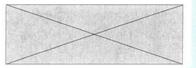


Exhibit at the BIO Career Fair

The BIO Career Fair, co-located with the 2015 BIO International Convention, is a great way to connect with new candidates, expand your organization's talent pool and help forecast potential hiring needs. A free benefit to the 15,000+ Convention attendees gathered from around the globe, as well as the tri-state area, the BIO Career Fair is a must-attend for those seeking career advancement opportunities, professional development resources, and access to the industry's top employers. Whether you are using the BIO Career Fair as your preliminary pre-recruitment activity or as your primary sourcing tool, there is no better opportunity for your organization to find prospective employees.

Learn more at convention.bio.org/careerfair

GOLD — \$15,000

- Premium booth space
- •10' x 20' recruiting area with company sign, table and 2 chairs
- 4-color ad on back cover (5.5" X 8.5") in BIO Career Fair program book
- •5 additional job postings on the Bio Jobs Job Board (a \$1,000 value)
- 30-day access to the candidate resume database
- Signage onsite
- Larger logo promotion on BIO Career Fair page
- Preferential job posting position, which allows prominent placement at top of search results

SILVER — \$10,000

- Premium booth space
- •10' x 10' recruiting area with company sign, table and 2 chairs
- 2 side-by-side ads (5.5" X 8.5" each) in BIO Career Fair program book
- 3 additional job postings on the Bio Jobs Job Board
- Signage onsite
- Larger logo promotion on BIO Career Fair page
- Preferential job posting position, which allows prominent placement at top of search results

Standard — \$4,200

Sign up prior to 3/1/15 to take advantage of early registration price of \$3950

- •10' x 10' recruiting area with company sign, table and 2 chairs
- •5.5" X 8.5" ad in BIO Career Fair program book
- •60-day access to the BIO candidate resume database
- •5 job postings on the Bio Jobs Job Board (a \$1,000 value)

convention.bio.org/careerfair

Online — \$2,750

Small Company* — \$1,500

Become an Exhibitor

Please contact Mark McGuire at m.mcguire@jobtarget.com or by phone at 860.271.7253 ext. 312 to reserve your space today!

Career Fair Schedule of Events

Head Shot Lounge | June 16, 17 and 18, 2015

9:30am - 5:00pm | Hall E, Booth #3859

Sponsored by Delaware Economic Development Office

Receive publish quality photo headshots for your LinkedIn, resume or personal social media accounts. You will be greeted by makeup artists and hairdressers to ensure that you get the "customized head shot" that makes you look great.

Job Search 2015 | June 18, 2015

201410:30am - 12:00pm | Room 121

Join industry decision makers and HR influencers for a candid discussion about what you need to run a successful job search in today's market. What's critical? What's changed? What are the necessary steps that get candidates hired?

Panelists:

- •Harriet Maphet, President, Infinity Resources (Moderator)
- •Amanda Brouillard, Manager, Career Services, Johnson & Johnson
- •Catherine Kapferer, Global Director, Head of Diversity, EEO Compliance & University Relations, Covance
- •Karen Koubek, Director, Human Resources, PTC Therapeutics
- ·Gene Mancino, Principal, Mancino Burfield Edgerton Search

Resume Builder Workshop | June 18, 2015

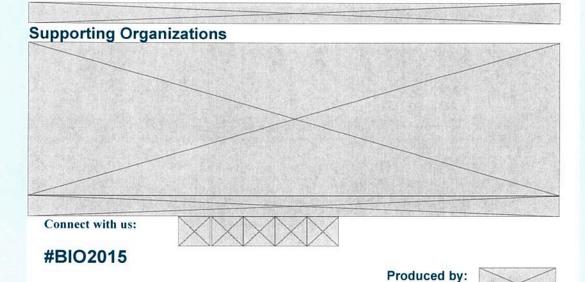
2:00pm and 3:00pm | Room 121

Join representatives from Joulé Staffing Solutions and Ashton Tweed to discuss best

practices for format and content of resumes.

Facilitators:

- •Charles Hagan, Manager, Talent Acquisition at Morphotek, a subsidiary of Eisai, Inc.
- •Matthew Levy, Senior Global HR Lead Generalist/Business Partner, Janssen R&D, Johnson & Johnson
- ·Sally Smith, Sales Manager, Joule Clinical and Scientific Staffing
- ·Jordan Warshafsky, Partner, Ashton Tweed, LTD



Biotechnology Industry Organization

1201 Maryland Ave. SW, Ste. 900 Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

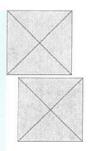
Update your preferences | Unsubscribe

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Wendy Siminski

Sent: Tue 5/5/2015 6:02:11 PM

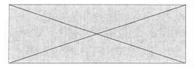
Subject: Don't Miss the Largest Biotech Career Fair MAIL_RECEIVED: Tue 5/5/2015 6:07:01 PM







Co-located with:



Attend the BIO Career Fair

Co-located with the 2015 BIO International Convention, the BIO Career Fair is a mustattend for those seeking career advancement opportunities, professional development resources and access to the industry's top employers.

- •Connect with recruiters and circulate your resume among corporate HR staff who are looking to fill positions and expand their talent pool.
- Explore job opportunities in business development, research, finance, marketing and more.
- •Establish new contacts and network with professionals from all industry segments.

The BIO Career Fair is FREE to attend and signing up is easy at <u>jobs.bio.org</u>—

- Pre-register or bring a hard copy of your resume/CV onsite (resume required for admittance).
- Upload your resume/CV to our Bio Jobs database.
- · Fill out your personal profile for employers to view.

The BIO Career Fair is powered by Bio Jobs, the premiere job board hosted by the industry's largest global trade association, BIO.

Learn more at convention.bio.org/careerfair



Career Fair attendees receive access to the #BIO15 Exhibition (\$199 value)

Career Fair Schedule of Events

Head Shot Lounge | June 16, 17 and 18, 2015

9:30am - 5:00pm | Hall E, Booth #3859

Sponsored by Delaware Economic Development Office

Receive publish quality photo headshots for your LinkedIn, resume or personal social media accounts. You will be greeted by makeup artists and hairdressers to ensure that you get the "customized head shot" that makes you look great.

Job Search 2015 | June 18, 2015

10:30am - 12:00pm | Room 121

Join industry decision makers and HR influencers for a candid discussion about what

you need to run a successful job search in today's market. What's critical? What's changed? What are the necessary steps that get candidates hired?

Panelists:

- •Harriet Maphet, President, Infinity Resources (Moderator)
- ·Amanda Brouillard, Manager, Career Services, Johnson & Johnson
- •Catherine Kapferer, Global Director, Head of Diversity, EEO Compliance & University Relations, Covance
- •Karen Koubek, Director, Human Resources, PTC Therapeutics
- ·Gene Mancino, Principal, Mancino Burfield Edgerton Search

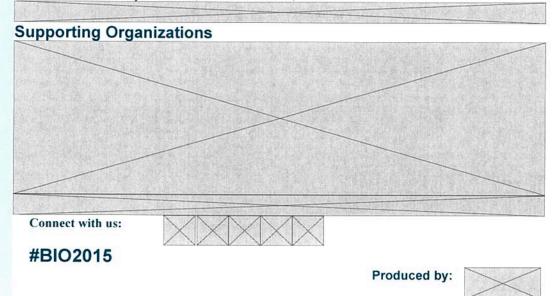
Resume Builder Workshop | June 18, 2015

2:00pm and 3:00pm | Room 121

Join representatives from Joulé Staffing Solutions and Ashton Tweed to discuss best practices for format and content of resumes.

Facilitators:

- •Charles Hagan, Manager, Talent Acquisition at Morphotek, a subsidiary of Eisai, Inc.
- •Matthew Levy, Senior Global HR Lead Generalist/Business Partner, Janssen R&D, Johnson & Johnson
- ·Sally Smith, Sales Manager, Joule Clinical and Scientific Staffing
- ·Jordan Warshafsky, Partner, Ashton Tweed, LTD



Biotechnology Industry Organization

1201 Maryland Ave. SW, Ste. 900 Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

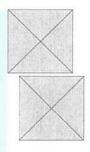
Update your preferences | Unsubscribe

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Wendy Siminski

Sent: Tue 5/5/2015 6:02:11 PM

Subject: Don't Miss the Largest Biotech Career Fair MAIL RECEIVED: Tue 5/5/2015 6:07:01 PM







Co-located with:



Attend the BIO Career Fair

Co-located with the 2015 BIO International Convention, the BIO Career Fair is a mustattend for those seeking career advancement opportunities, professional development resources and access to the industry's top employers.

- •Connect with recruiters and circulate your resume among corporate HR staff who are looking to fill positions and expand their talent pool.
- •Explore job opportunities in business development, research, finance, marketing and more.
- •Establish new contacts and network with professionals from all industry segments.

The BIO Career Fair is FREE to attend and signing up is easy at jobs.bio.org—

- Pre-register or bring a hard copy of your resume/CV onsite (resume required for admittance).
- · Upload your resume/CV to our Bio Jobs database.
- · Fill out your personal profile for employers to view.

The BIO Career Fair is powered by Bio Jobs, the premiere job board hosted by the industry's largest global trade association, BIO.

Learn more at convention.bio.org/careerfair



Career Fair attendees receive access to the #BIO15 Exhibition (\$199 value)

Career Fair Schedule of Events

Head Shot Lounge | June 16, 17 and 18, 2015

9:30am - 5:00pm | Hall E, Booth #3859

Sponsored by Delaware Economic Development Office

Receive publish quality photo headshots for your LinkedIn, resume or personal social media accounts. You will be greeted by makeup artists and hairdressers to ensure that you get the "customized head shot" that makes you look great.

Job Search 2015 | June 18, 2015

10:30am - 12:00pm | Room 121

Join industry decision makers and HR influencers for a candid discussion about what

you need to run a successful job search in today's market. What's critical? What's changed? What are the necessary steps that get candidates hired?

Panelists:

- •Harriet Maphet, President, Infinity Resources (Moderator)
- •Amanda Brouillard, Manager, Career Services, Johnson & Johnson
- •Catherine Kapferer, Global Director, Head of Diversity, EEO Compliance & University Relations, Covance
- •Karen Koubek, Director, Human Resources, PTC Therapeutics
- •Gene Mancino, Principal, Mancino Burfield Edgerton Search

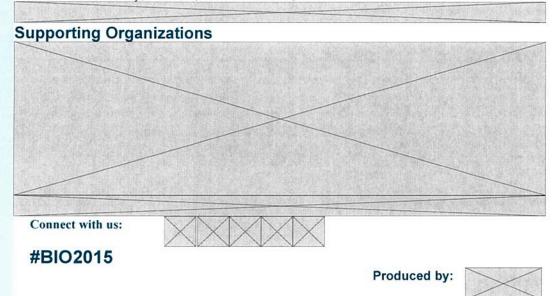
Resume Builder Workshop | June 18, 2015

2:00pm and 3:00pm | Room 121

Join representatives from Joulé Staffing Solutions and Ashton Tweed to discuss best practices for format and content of resumes.

Facilitators:

- •Charles Hagan, Manager, Talent Acquisition at Morphotek, a subsidiary of Eisai, Inc.
- •Matthew Levy, Senior Global HR Lead Generalist/Business Partner, Janssen R&D, Johnson & Johnson
- ·Sally Smith, Sales Manager, Joule Clinical and Scientific Staffing
- ·Jordan Warshafsky, Partner, Ashton Tweed, LTD



Biotechnology Industry Organization

1201 Maryland Ave. SW, Ste. 900 Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information

click here.

Update your preferences | Unsubscribe

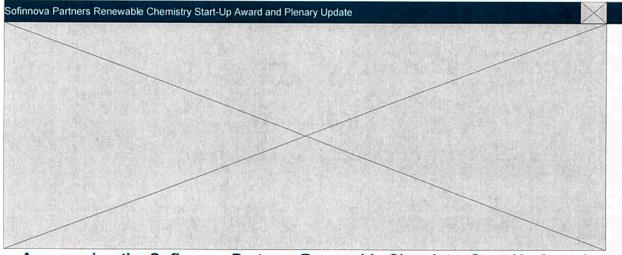
To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Brent Erickson

Sent: Mon 5/4/2015 4:31:22 PM

Subject: Announcing the Sofinnova Partners Start-Up Award

MAIL_RECEIVED: Mon 5/4/2015 4:32:32 PM



Announcing the Sofinnova Partners Renewable Chemistry Start-Up Award



Calling all start-up companies active in renewable chemistry, industrial biotechnology or renewable fuels: Apply today for the Sofinnova Partners Renewable Chemistry Start-up Award by May 30, 2015.

This award will recognize the most promising renewable chemistry start-up company in the industry. The Top 5 companies with the highest number of popular online votes will pitch their project at the 2015 BIO World Congress on Industrial Biotechnology. The winner will then be selected onsite by an industry jury at the Monday, July 20th event.

Sofinnova Partners is a leading European venture capital fund based in Paris investing in startup and early stage companies across Europe and North America.

Biobased Innovations for the Future



Jim Lane

Editor & Publisher, Biofuels Digest (Moderator)

Olga Selifonova CEO & Founder, Reluceo



William Radany

President & CEO, Verdezyne

David Demirjian

CEO, ZuChem

Andras Forgacs

Co-Founder & Chief Executive, Modern Meadows

Success Stories

Lunch Sponsored by: Andrew Hagan

Director, Head of Chemicals Industry, World Economic Forum (Moderator)



Tjerk de Ruiter

CEO, Corbion

Vincent Chornet

Cofounder, President & CEO, Enerkem

Robert Graham

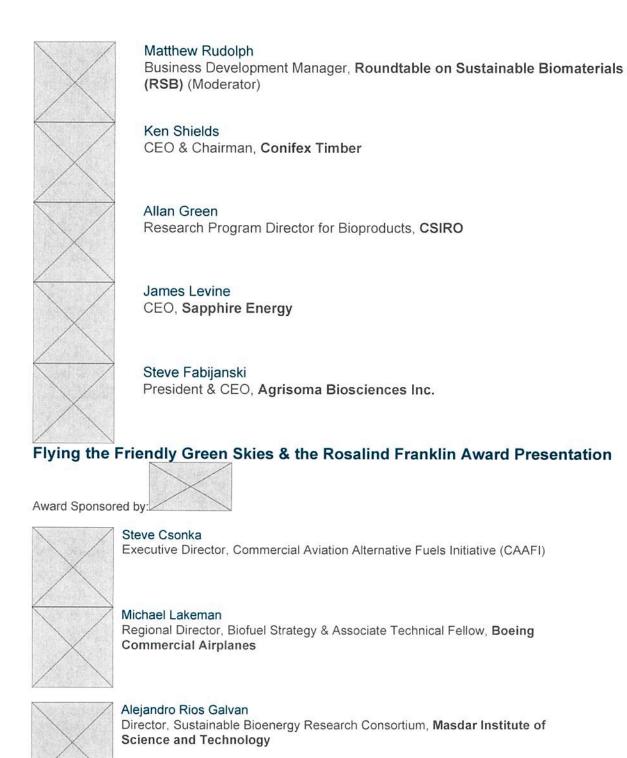
CEO & Chairman, Ensyn

Joel Stone

President, North America & Global Vice President Engineering, **Green Biologics**

Feedstock Sustainability in the Biobased Economy

Supporting Organization:





Maria Fiskerud Nordic Director, Sky NRG

State and Regional Approaches to Developing the Biobased Economy & the George Washington Carver Award Presentation Sponsored by: Award Sponsored by: The Honorable James C. Greenwood President and CEO, Biotechnology Industry Organization (Moderator) The Honorable Terry Branstad Governor, Iowa, United States Barend Verachtert Deputy Head of Biotechnologies Unit, European Commission Bernardo Silva Executive Chairman, Praj Industries Limited

View the Plenary Program »

Pramod Chaudhari

Don't Wait Until the Last Minute to Plan for Montreal

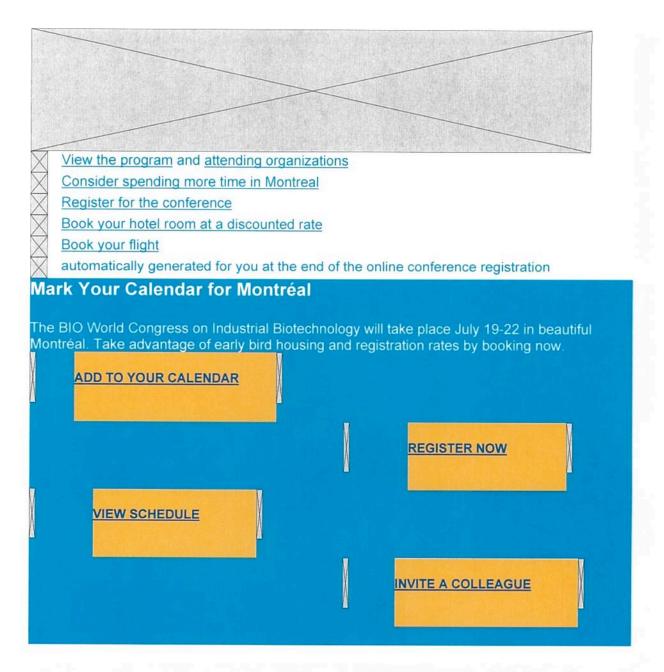
Executive President, Brazilian Industrial Biotechnology Association (ABBI)

The BIO World Congress on Industrial Biotechnology taking place July 19-22, 2015 in Montreal is less than 90 days out. Don't miss out on being a part of the must-attend event for industrial biotechnology professionals.

Remember summer marks Montreal's famous festival season and "Just for Laughs" comedy festival will be taking place during BIO World Congress. Also, you can be part of two conferences in one trip by attending BioFuelNet's Advanced Biofuels Symposium July 22-24 at the Hotel Omni.

Your Checklist:

Secure your visa- If you are an international attendee an invitation letter will be



Sponsors Click here for the 2015 World Congress Sponsors Supporting Organizations & MEDIA PARTNERS Algae Biomass Organization · Advanced Biofuels USA · Agrobase (IAR) · Biobased Industries Consortium · BioDeutchland · Biofuels Digest · BIOTECanada · Bloomberg · Chemical Institute of Canada · EuropaBio · Going Public Magazine · Green Chemicals Blog · industrial Biotechnology Journal · Mary Anne Liebert, Inc Publishers · National Research Council Canada · Portugal's National Association of Biotechnology · Renewable Energy from Waste · Russian Biofuels Association · World Economic Forum · World Gen EXHIBITORS AAFC · Alberta Biotechnology Association · Applied Chemical Technology · ARPA-E Energy Innovation Summit · Atlantic Canada Bio-Industries Alliance · Axens · Bio-Based Industries Consortium · Bio Base

Europe Pilot Plant · Biocatalysts Ltd · Biofuels Digest · Bio-Technical Resources · BIOTECanada · Calgon Carbon Corporation · Chemical Institute of Canada · Chemistria · Holland Biotech Pavilion · IAR Cluster · Imperial Valley Economic Development Corporation · Industrial Biotechnology Journal - Mary Ann Liebert, Inc. Publishers · Iowa Bioprocessing Center · Iowa, State of · ITOCHU Chemicals America, Inc. · Life Sciences Association of Manitoba · Life Sciences Queensland Limited (LSQ) · M2 Media · National Research Council Canada (NRC-ARD) · OLEOTEK · Phage Consultants · Quebec Government · Queensland University of Technology · Sarnia Hybrid Cluster · State of Illinois · Succinity · United Soybean Board · U.S. Department of Energy
As of May 1, 2015 Contact worldcongress@bio.org for more information on branding opportunities For more information, go to bio.org/worldcongress
FOLLOW US:
www.bio.org/events/conferences/world-congress-industrial-biotechnology

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.
Update your preferences | Unsubscribe

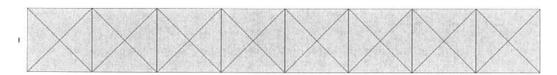
To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

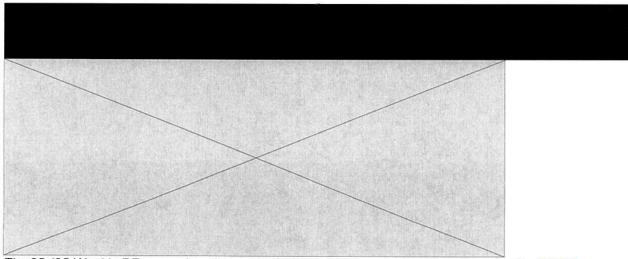
From: 25x'25

Sent: Fri 5/1/2015 4:20:04 PM

Subject: Weekly REsource for May 1, 2015
MAIL_RECEIVED: Fri 5/1/2015 4:20:11 PM

Having trouble viewing this email? Click here





The 25x'25 Weekly REsource is a digest that features items from this week's blog site, the <u>25x'25</u> REsource, and other sources. The <u>25x'25</u> REsource and the 25x'25 Weekly REsource complement the role of <u>25x'25</u> as an objective and trusted source of information on agricultural and forestry renewable energy and climate solutions. Also, visit us at our Facebook page and follow us on Twitter.

Our Featured Blog

News of Note

Headlines of Note

Upcoming Events



Our Featured Blog

State Commitment to Renewables Seen in Formation of North Carolina Bioenergy
Council

News of Note

Neary 39 Erms am patiting Relative and trainitist of the consideration in other legislative resurfaced this week in two additional measures under consideration in other legislative reversity and the state and the state of the consideration in other legislative reversity and the state and the consideration in other legislative reversity and the consideration in other legislative reversity and the consideration of the considera

The CNEE says only two bills have thus far been enacted: West Virginia's HB 2001, which repealed the state's standard, and New Mexico's SB 249, which allows renewable energy credits to be issued to rural electric cooperatives for geothermal resources. The West Virginia standard was seen by many renewable energy advocates as a policy tool primarily aimed at promoting "clean" coal.

This year is the target date for Renewable Portfolio Standards in eight states.

Modifications to existing standards continue to be the most commonly proposed type of legislation, the CNEE says. Interestingly, percentage shares by category have shifted over the last three years. Notably, the percentage share of legislation introduced this year to increase an RPS grew over 2013 and 2014. This year, rollback, modification and increase legislation each represented about a third of all measures introduced.

Twenty-six bills to rollback an RPS have been introduced in 18 states. In Arizona, Kansas, Michigan, Oregon, South Dakota, and Texas, rollbacks were the only type of RPS-related legislation introduced. Three of these states, Michigan, South Dakota, and Texas, have 2015 portfolio standard target dates.

Similar to previous sessions, the majority of proposals (10 bills) would repeal an RPS. Another large group would extend eligibility to or remove size limits on large hydroelectric facilities (8 bills). The remainder of this category would reduce or freeze targets (4 bills), add nuclear fuels (3 bills), or provide eligibility to fossil fuel resources (1 bill). Of the 26 bills, the West Virginia measure, is the only one that has been enacted to date.

Colorado's SB 15-046 would allow electric cooperative associations to subtract industrial retail sales from total retail sales when calculating their retail distributed generation requirements. The bill also allows cooperatives to use purchases from

Physical Physics to meet retail distributed generation requirements. The legislation has been sent to Gov. John Hickenlooper for his consideration.

News of interest to our 25x'25 Partners and advocates for a clean energy future: In Montana, SB 114 would have added existing hydropower to the list of eligible resources. Gov. Steve Bullock vetoed the legislation at the end of March. Texas' SB 931 was approved by the Senate on April 14th.

Energy Efficiency in Bloom

North Carolina introduced a bill (HB 681) to reduce state's RPS target from 12.5 percent to percent

Industrial Maistaites Have ristroblated Mathillate increase an RPS, none of which have been enacted to date.

Is Standardized Permitting Solar's Next Big Industry Breakthrough?

In Hawaii, both chambers of the state's legislature have voted to approve HB 623. Citing this state's progressing receiving described bill increases the state's target to 60 percent renewable energy by 2030 and 100 percent by 2045. The bill has been received the transfer with Standard from the state and the state of the state of

Progress as Renewable Energy Matures

Vermont's H 40 may be one of the more higher profile bills this year. Approved by the Henseland International Residence in the state of the state of

VA Governor Signs 6 Energy Bills, Including Boosts for Solar, Efficiency

Legislation to increase requirements has also been introduced in California and New York. In California, two similar bills (AB 645 and SB 350) would create a 50 percent renewable target for the state. Both proposals remain in committee. New York's RPS, adopted by the states Public Service Commission in 2004, set a 29 percent by 2015 target. In recent years, several attempts have been made to increase requirements and establish the RPS through legislative action. This year, two such proposals (A 4757 and S 2893) have been introduced. Both bills have yet to be acted on. Speakers Confirmed for NDARE Solar Event

Meanwhile, thirty-two bills to modify a portfolio standard have been introduced in 18 states. As was the case in 2013 and 2014, the majority (13 bills) of these bills would amend resource eligibility provisions. The remainder address REC programs and blantership (Tability) is a state of consequence of the constant of the state of the constant of th

Only one bill has been enacted. In New Mexico, Gov. Susana Martinez signed SB 249 into law. The legislation defines thermal energy and allows RECs to be issued to rural electric cooperatives for thermal energy originating from geothermal resources. Because the change incorporates RECs for geothermal heat pumps, the state may need to initiate a request for a rule change with the Western Renewable Energy

25 RE25 i Splotogration System (WREGIS). s 62 Percent of Americans Support Federal RFS I SURVEY released this week by the Renewable Finels Association (RFA) shows STAY CONNECTED

Meanwhile, efforts continue from some in Congress to modify or repeal the RFS. One measure in the Senate would strip corn ethanol blending requirements from the standard, leaving it to focus on advanced biofuels. However, ethanol industry leaders say removing corn ethanol from the standard would be counterproductive, arguing that first-generation ethanol is serving as a technological and economic bridge to advanced biofuels.

A key takeaway from the poll is the finding that the RFS garners broad, bipartisan support from Democrats (65 percent), Independents (61 percent) and Republicans (57 percent) alike. The poll shows strong (65 percent) support for federal tax incentives for the expansion of cellulosic ethanol a biofuel produced from wood, grasses and other non-edible parts of plants.

And just more than half (51 percent) of those polled oppose tax incentives given by the federal government to oil companies in order to help pay for such things as equipment depreciation, oil depletion allowances, and foreign investment tax credits for taxes they pay in foreign countries. Only about one-third of voters (34 percent) support such government assistance to oil companies and 15 percent have no opinion.

Seven in 10 of those surveyed said they support requiring automobile manufacturers to build alternative fuel cars that will run on fuel sources other than oil, such as electricity, natural gas and biofuels.

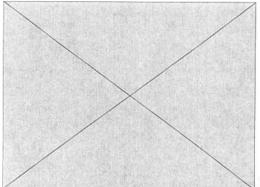
The poll follows the news last week that a bipartisan group of 37 senators sent a letter to EPA Administrator Gina McCarthy calling on the agency to back away from the original 2014 RFS proposal and comply with the blending levels called for by the 2007 legislation.

The senators tell McCarthy in the letter that the RFS "has already proven to be an effective driver of alternative fuels and economic development...It has strengthened agriculture markets and created hundreds of thousands of jobs in the new energy economy, many of which are in rural areas. Setting strong biofuels volume requirements for 2014 and beyond will ensure this progress continues.

"A stable RFS will also provide the certainty needed to unlock future investments in renewable fuels and necessary infrastructure, reduce our nation's dependence on foreign sources of energy, and drive innovation and progress toward cellulosic, biodiesel, recycled-waste, algal and other advanced biofuels," the letter states.

ACEEE Chief Says Efficiency Bills could be Big Part of Broad Energy Act

The United States has made substantial progress in reducing energy waste and improving energy efficiency in all sectors of the economy, but the potential is there to do much more, the head of a major advocacy group told Congress this week.



In testimony before the Senate Energy and Natural Resources Committee, Steven Nadel, executive director of the American Council for an Energy-Efficient Economy (ACEEE), said continued efforts by Congress to promote energy efficiency "will reduce consumer and business energy costs, strengthen the economy, help improve the security and resiliency of our energy systems, and protect the environment."

He cited the passage earlier this month of S. 535, a slimmed down version of an earlier bill introduced by Sens. Jeanne Shaheen (D-NH) and John Portman (R-OH) and signed into law this week by President Obama, as a good start. But he said there is more the 114th Congress can do to advance energy efficiency in the United States, including enacting many of the 22 bills the committee has under consideration.

"We appreciate that the committee is focusing a hearing on energy efficiency and that Chairman (Barbara) Murkowski (R-AK) has indicated that a forthcoming comprehensive energy bill will include an energy efficiency title," Nadel said. But, he noted, "it has been eight years since Congress passed a major piece of energy legislation. History indicates that such legislation can only be enacted with broad bipartisan support. Highly politicized issues are unlikely to receive 60 votes in the Senate, and even if a bill passes the Senate, getting both a more conservative House and a more liberal president to accept the legislation will require sticking to provisions with broad bipartisan support."

In his testimony, Nadel cited a 2011 ACEEE report that estimates widespread use of energy efficiency technologies and practices can reduce U.S. forecasted energy use by at least 40 percent by 2050. He said new technologies and practices continue to be developed, and thus energy efficiency potential continues to grow.

Dividing the bills under consideration into a number of categories, Nadel said several of the measures have strong bipartisan support and should be the centerpiece of an energy efficiency title that would be included in comprehensive energy legislation.

Among the bills cited by Nadel as having strong ACEEE support is the broader Shaheen Portman measure, the Energy Savings and Industrial Competiveness Act (S. 720), noting the bill has been "refined and debated for several years" and has many cosponsors.

Pointing out that S. 720 is very similar to prior versions of the bill. Nadel said a 2013

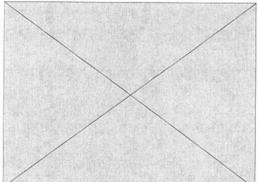
ACEEE analysis estimated the likely energy savings from the then-current version of the bill and a variety of potential amendments, some of which have since been added to the bill. ACEEE also prepared a supplemental analysis on the Sensible Accounting to Value Energy (SAVE) Act, which is now included in the current bill.

"Overall, we estimated that these bills would save about 12 quadrillion Btu (quads) of energy on a cumulative basis between 2014 and 2030," he testified. "By way of comparison, the United States uses just under 100 quads per year, and Texas, the largest energy consumer, uses about 12 quads per year."

He said his group's analysis also showed the Portman-Shaheen bill would support up to 81,000 jobs in 2020 and up to 174,000 jobs in 2030. That estimate rises to 193,000 jobs in 15 years when SAVE is added to the analysis.

Wind Energy Accelerates Record Growth in First Quarter

Strong growth in the U.S. wind energy industry accelerated during the first quarter of 2015, with a near-record 13,600 megawatts (MW) of generating capacity under construction across 100 projects in 23 states, according to a quarterly market report from the American Wind Energy Association.



"We're just getting this bounce back started," said AWEA CEO Tom Kiernan. "Over \$23 billion worth of new wind farms are in development now, and more will follow as we work to double American wind power by 2020."

Kiernan said Congress must provide a stable business environment by extending the Production Tax Credit for as long as possible.

"No one wants to throw a promising American industry off a cliff, but that's what could happen to future development unless the PTC is extended," he said.

The release of the quarterly report comes on the heels of AWEA's 2014 U.S. Wind Industry Annual Market Report, which showed strong construction and manufacturing activity at more than 500 facilities in 43 states added nearly 23,000 jobs in 2014. That increases the total amount of full-time equivalent jobs supported by U.S. wind energy to 73,000 as of the start of 2015.

"These latest numbers confirm that the immediate future for the wind industry is bright, as we're seeing the second highest construction levels in U.S. history for new wind projects," said Hannah Hunt, research analyst for AWEA and author of AWEA's first quarter market report.

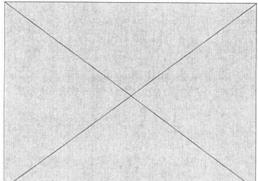
The U.S. wind industry completed 131 megawatts of generating capacity in the first quarter (traditionally the slowest quarter of the year for completions). These wind turbines were installed across three projects in different states with most of the new capacity installed in Texas (110 MW), followed by Iowa (20 MW) and New York (1 MW). Wind developers also reported 1,200 MW of new construction activity in the first quarter of 2015 for projects that were previously under development, contributing to more than 13,600 MW of total capacity under construction as of March 31.

The top state with the most under construction is Texas, where a "wind rush" is underway with more than 7,800 MW being built, most of it connected to the Competitive Renewable Energy Zone (CREZ) transmission lines in West Texas.

Ironically, the Texas legislature is considering a bill that would eliminate the state's Renewable Portfolio Standard and the CREZ program, both of which stakeholders say have driven the growth of wind energy in the state.

New DOE Report Highlights Success, Potential of American Hydropower

The DOE has released the first ever report to quantify the current size, scope, and variability of U.S. hydropower supplies.



Assistant Secretary for Energy Efficiency and Renewable Energy David Danielson announced the release of the 2014 Hydropower Market Report this week at the National Hydropower Association Annual Conference.

Hydropower currently provides approximately seven percent of the U.S. electricity supply, enough to power more than 20 million homes, and has experienced significant growth industry-wide. Within the last decade, the industry has supported more than 55,000 direct domestic jobs across the country, and helped offset 200 million metric tons of carbon emissions per year, equivalent to the emissions from more than 42 million passenger vehicles.

The report also highlights how hydropower can be rapidly integrated with other renewable energy sources into the electric grid and contributes to an Obama administration goal of doubling the nation's renewable energy supply again by 2020.

"This report outlines the diversity of our nation's hydropower fleet, shows its tremendous contribution to the U.S. clean energy mix, and points to promising future growth," Danielson said. "With an expanding industry and continued investment, hydropower remains one of our nation's most cost-effective and reliable sources of renewable energy and provides an important tool for boosting our clean energy supply."

The report highlights the critical investment of more than \$6 billion throughout the last decade to strengthen the existing hydropower fleet and the economic benefits that have resulted from support of the industry. Today, the hydropower manufacturing supply chain spreads across 38 states, with more than 170 companies producing one or more of six major hydropower components: turbines, generators, transformers, penstocks, gates, and valves.

Presenting a unique analysis of the current project development pipeline in the hydropower sector, the report shows that America has more than 77 gigawatts (GW) of untapped hydropower resource potential, and will continue to innovate to help unleash that potential. By making use of existing water resources and infrastructure, the vast majority of new hydropower projects built over the last decade have added electric generating equipment to dams that were previously not powered. The current hydropower development pipeline contains a diverse mixture of projects proposed at non-powered dams, conduits, and previously undeveloped rivers and streams.

For more than 100 years, hydropower has delivered a source of clean, renewable electricity in almost every state, officials say. Today, it plays a key role in providing flexibility to the nation's power grids, allowing utility operators to quickly fulfill spikes in electrical demand such as those caused by summer heat waves making hydropower a vital asset to many states' energy portfolios. Further expanding system flexibility, more than 50 pumped-storage hydropower projects, which function as large energy storage systems for other clean energy sources, are in the various stages of planning and development and will add strength and stability to our electric grids.

FERC 1Q Numbers Show New Renewable Electricity Capacity Domination

An update from the Federal Energy Regulatory Commission (FERC) shows wind, solar, geothermal and hydropower combined to provide more than 75 percent of the 1.2 gigawatts (GW) of new U.S. electrical generating capacity that came online during the first quarter of 2015.

According to an analysis of the update by the SUN DAY campaign, a renewable energy advocacy group, FERC's office of energy projects shows that from January through March, eight new wind energy units came online with a combined capacity of 647 megawatts (MW), an amount that accounts for nearly 53 percent of all new generating capacity for the quarter.

Another 30 solar power units built during the quarter represents some another 214 MW, while one 45-MW geothermal steam unit and one 21-MW hydropower unit also came online. The balance of new generating capacity for the quarter came from five natural gas units constructed with a combined capacity of 302 MW.

The SUN DAY Campaign says the 2015 renewable energy numbers are slightly down from the same period in 2014. During the first three months of last year, renewables represented some 1.4 GW of new capacity. Natural gas installed capacity this year was higher when compared to the 159 MW that came online last year. Coal and nuclear added no new power generating capacity during the first three months of last year, while oil offered a single megawatt during the quarter.

Overall, renewable energy sources accounted for half of all new generating capacity that came online through all of 2014.

"The trend lines for the past several years have been consistent and unmistakable," notes Ken Bossong, executive director of the SUN DAY Campaign. "Each month, renewable energy sources particularly wind and solar increase their share of the nation's generating capacity while those of coal, oil and nuclear decline."

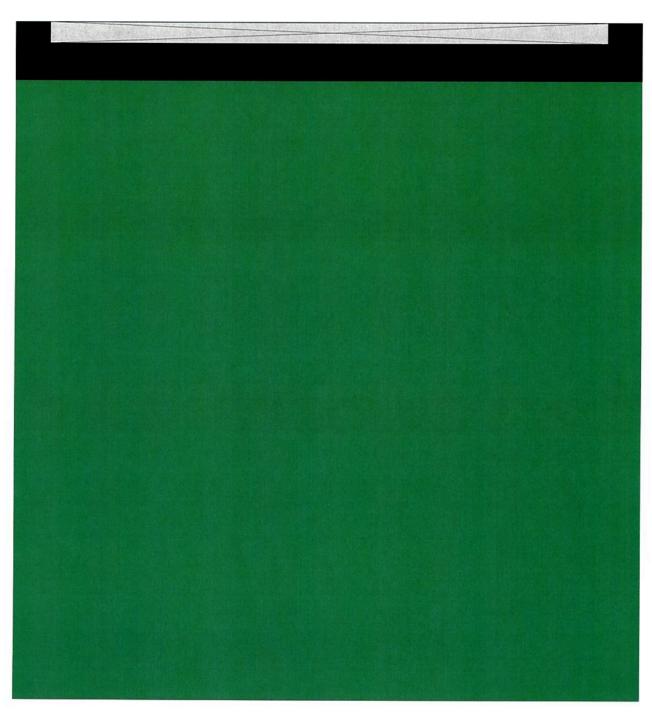
Renewable energy sources now account for 16.92 percent of total installed operating generating capacity in the United States, including 8.53 percent in hydropower, 5.65 percent in wind energy, 1.38 percent in power generated by biomass, 1.03 in solar power, and 0.33 percent from geothermal steam.

Sean Gallagher, vice president of State Affairs for the Solar Energy Industries
Association; local and community solar planning expert Brian Ross; and Claudette
Reichel, Extension Housing Specialist at the LSU Ag Center.

To register for the workshop, click <u>HERE</u>. Space is limited.

Other events of interest to 25x'25 partners and other renewable energy stakeholders can be found by clicking $\underline{\text{here}}$.

٠





This email was sent to argyropoulos.paul@epa.gov by info@25x25.org
Update Profile/Email Address Rapid removal with SafeUnsubscribe™ Privacy Policy.

25x'25 Alliance 1430 Front Ave Lutherville MD 21093

,

To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Wendy Siminski

Sent: Thur 4/30/2015 5:46:35 PM

Subject: Announcing our Buzz of BIO Winners! MAIL_RECEIVED: Thur 4/30/2015 5:51:09 PM

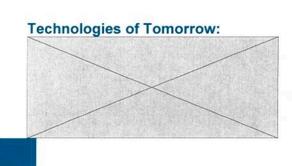


Congratulations to Our Winners!

The *Pipelines of Promise* winner is Vascular BioSciences (VBS) and *Technologies of Tomorrow* winner is ProTransit Nanotherapy.

<u>Buzz of BIO winners</u> join over 180 new industry players delivering 15-minute Company Presentations as part of the BIO Business Forum.







One-on-One Partnering™

BIO's new One-on-One Partnering™ system will dramatically reduce your business development costs while increasing your partnering effectiveness year-round.

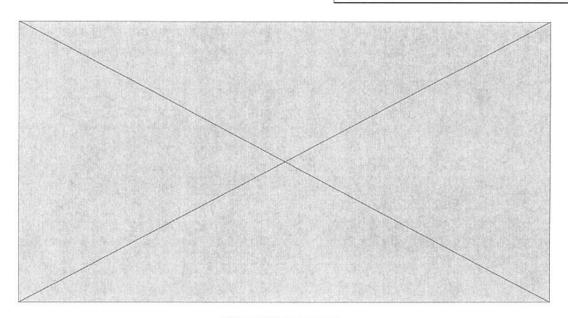
Learn MOre About partnering



Company Presentations

We are still accepting applications for 2015 company presentations! Presenting companies received 118% MORE partnering meetings at BIO 2014 than non-presenting companies, on average.

View Presenting Companies



View all sponsors »

BIO International Convention June 15-18, 2015 | Philadelphia, PA

Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

You were added to the system January 30, 2009. For more information click here.

Update your preferences | Unsubscribe

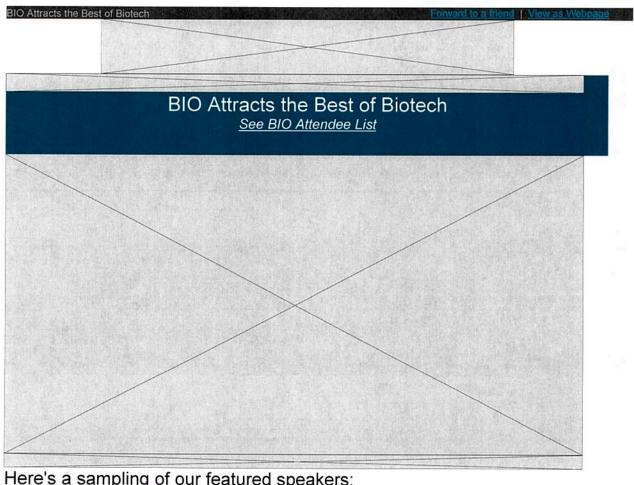
To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Sarah Arth

Sent: Wed 4/29/2015 3:14:50 AM

BIO 2015 eBook, attendee list + featured speakers Subject:

MAIL RECEIVED: Wed 4/29/2015 3:15:40 AM



Here's a sampling of our featured speakers:

Katrine Bosley | profile

Chief Executive Officer, Editas Medicine

How to grow a sustainable biotech company? Three success stories (Thursday)

The Promise of Gene Editing (Tuesday)

llan Ganot | profile

Founder and Chief Executive Officer, Solid Ventures

The Power of Collaborations: Therapeutic Advances in Rare Diseases (Wednesday)

Julie Gerberding | profile

Executive Vice President, Strategic Communications, Global Public Policy, and Population Health, Merck

Investment Incentives to Combat Antimicrobial Resistance (AMR) (Wednesday)

Geno Germano | profile Group President, Global

Group President, Global Innovative Pharma Business, Pfizer

M&A and Capital Allocation: Everything Old is New Again (Tuesday)

Jo Natauri | profile

Managing Director, Investment Banking, Goldman Sachs

Transforming Diagnostics With Innovative Technologies: Potential and Pitfalls (Wednesday)

Julie Papanek | profile

Principal, Canaan Partners

Acceleration of Investor Interest in Digital Health (Wednesday)

Digital Health and the Transformation of Clinical Trial Management (Wednesday)

Jack Hidary | profile

Chairman, Samba Energy; Member, Google X Labs Advisory Board

The Internet of Everything Meets Digital Health (Tuesday)

BIO Attendee List

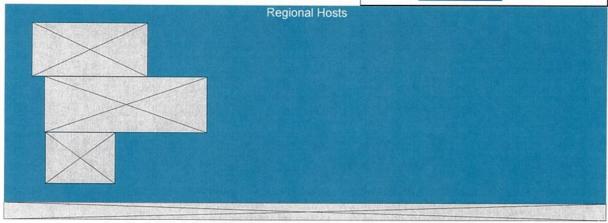
Network with 2,500 CEOs and 15,000 global leaders in Philadelphia

View Attendees

Sessions by Track

Hear from hundreds of the industry's best discuss the future of healthcare

View Sessions



BIO International Convention

June 15-18, 2015 | Philadelphia, PA

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here. Update your preferences | Unsubscribe

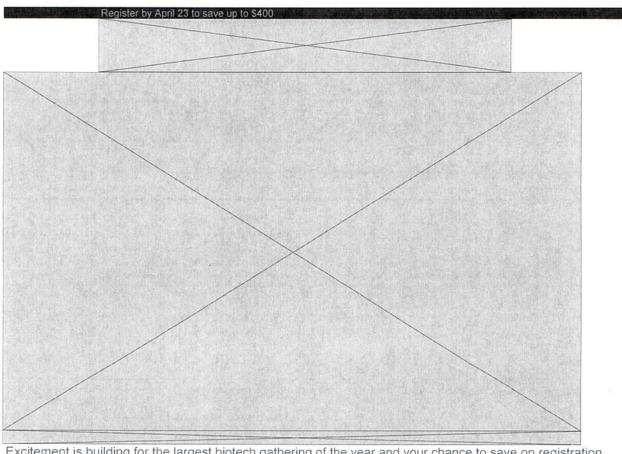
To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

From: Wendy Siminski

Sent: Tue 4/21/2015 2:17:30 AM

Subject: BIO 2015 Early Bird Deadline is Thursday, April 23

MAIL_RECEIVED: Tue 4/21/2015 2:18:31 AM



Excitement is building for the largest biotech gathering of the year and your chance to save on registration ends April 23! Plan to arrive in Philadelphia Monday, June 15 and depart Friday, June 19 with three full days of Exhibits, Partnering, and Education Tuesday - Thursday.

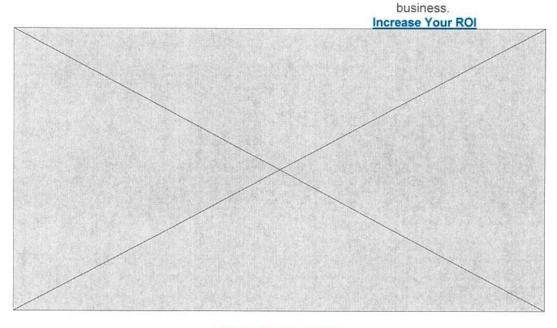


BIO Attendee List

Network and partner with 2,500+ CEOs and 15,000 global leaders in Philadelphia this June.

View PARTIAL list





View all sponsors »

BIO International Convention
June 15-18, 2015 | Philadelphia, PA

Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

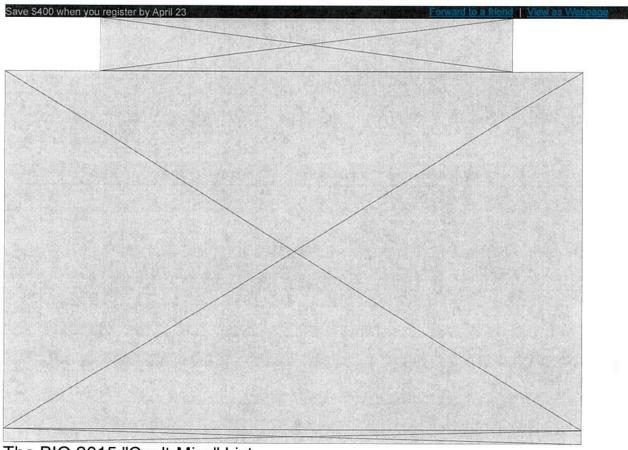
Update your preferences | Unsubscribe

From: Wendy Siminski

Sent: Thur 4/16/2015 4:13:43 AM

Subject: BIO Kickoff Concert Announced + Last Chance to Save

MAIL_RECEIVED: Thur 4/16/2015 4:15:31 AM



The BIO 2015 "Can't-Miss" List

Excitement is building for the largest biotech gathering of the year and your chance to save on registration ends April 23. Here are several new highlights in our Convention Access & Partnering package that have the industry talking:

Monday Kickoff Concert
Featuring Boyz II Men, The Roots and Kool & The Gang

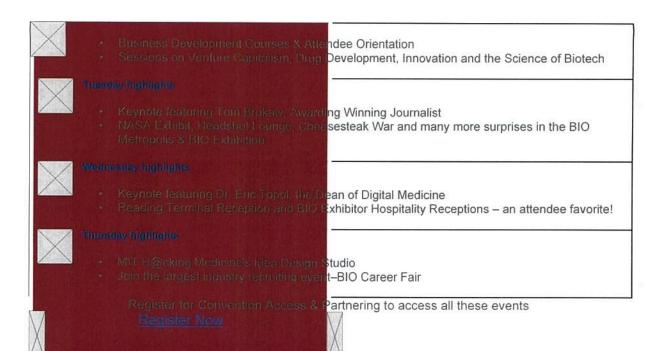
Monday - Thursday: education
Industry leaders including Dr. Francis Collins, Dr. Carl June, Katrine Bosley and more forecast the future of biotech

Tuesday - Thursday: partnering
World's largest biotech and pharma partnering event facilitating 29,000+ meetings in BIO's new One-on One Partnering™ System

Tuesday - Thursday: BIO Exhibition

• 2 Floors of Exhibits, 40+ Pavilions and 8 Focus Zones
• Digital Health Zone, Academic Zone, Company Presentations and the Innovation Zone featuring NIH and NSF SBIR-funded companies

Monday highlights



Register & Upgrade

Upgrade your registration to Convention Access & Partnering to access 3,000 global companies and thousands of C-level thought leaders via BIO's new One-on-One Partnering™ System.

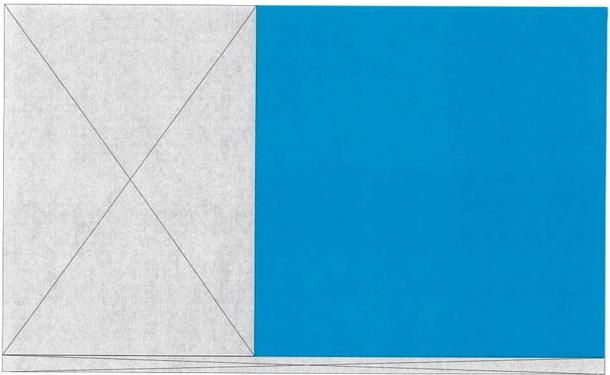
Register »

Increase Your ROI

BIO is completely changing the way that your team does business! BIO's new One-on-One Partnering™ system will dramatically reduce your business development costs while increasing your partnering effectiveness year-round.

Learn how »

BIO International Convention



BIO International Convention
June 15-18, 2015 | Philadelphia, PA

Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

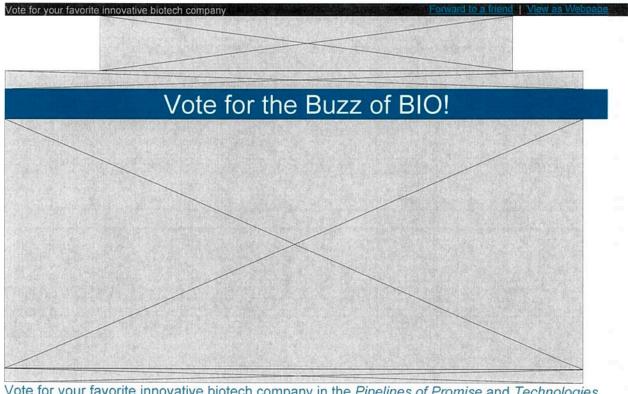
This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click.here.

Update your preferences | Unsubscribe

From: Wendy Siminski

Sent: Tue 4/14/2015 5:31:13 PM Subject: Vote for the Buzz of BIO

MAIL RECEIVED: Tue 4/14/2015 5:35:45 PM



Vote for your favorite innovative biotech company in the Pipelines of Promise and Technologies of Tomorrow categories.

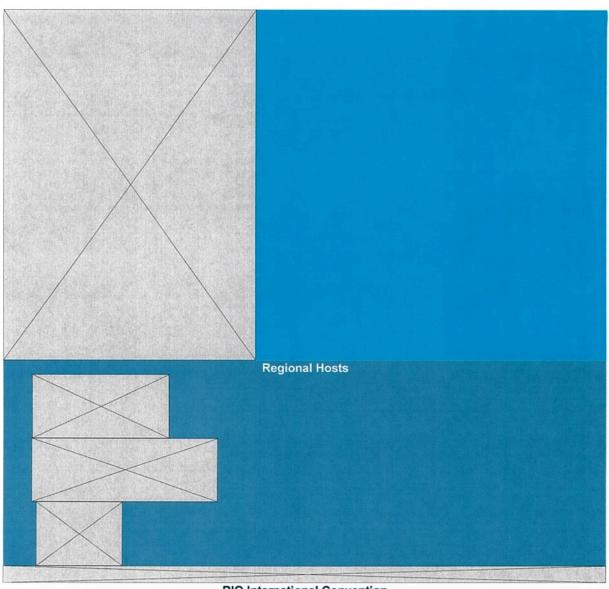
The company with the most votes in each category will win one complimentary Convention Access & Partnering pass as well as a Company Presentation in front of industry leaders.

Act fast! Voting closes Tuesday, April 21 at 5:00 PM ET.

Register & Upgrade
Upgrade your registration to Convention Access &
Partnering to access 3,000 global companies and
thousands of c-level thought leaders via BIO's New One-on-One Partnering System. Register »

Increase Your ROI

BIO is completely changing the way that your team does business! BIO's new One-on-One Partnering ™ system will dramatically reduce your business development costs while increasing your partnering effectiveness year-round. Learn how »



BIO International Convention
June 15-18, 2015 | Philadelphia, PA

Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

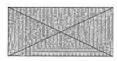
Update your preferences | Unsubscribe

From: Wendy Siminski

Sent: Thur 4/9/2015 8:33:21 PM

Subject: Join the Largest Industry Recruiting Event—BIO Career Fair, June 18, #BIO2015

Powered by:





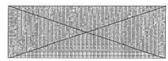


Exhibit at the BIO Career Fair

The BIO Career Fair, co-located with the 2015 BIO International Convention, is a great way to connect with new candidates, expand your organization's talent pool and help forecast potential hiring needs. A free benefit to the 15,000+ Convention attendees gathered from around the globe, as well as the tri-state area, the BIO Career Fair is a must-attend for those seeking career advancement opportunities, professional development resources, and access to the industry's top employers. Whether you are using the BIO Career Fair as your preliminary pre-recruitment activity or as your primary sourcing tool, there is no better opportunity for your organization to find prospective employees.

Learn more at convention.bio.org/careerfair

GOLD - \$15,000

- Premium booth space
- •10' x 20' recruiting area with company sign, table and 2 chairs
- •4-color ad on back cover (5.5" X 8.5") in BIO Career Fair program book
- •4-color ad off back cover (5.5) (6.6)... •5 additional job postings on the Bio Jobs Job Board (a \$1,000 value)
- •30-day access to the candidate resume database
- Signage onsite
- Larger logo promotion on BIO Career Fair page
- Preferential job posting position, which allows prominent placement at top of search

SILVER - \$10,000

- Premium booth space
- •10' x 10' recruiting area with company sign, table and 2 chairs
- •2 side-by-side ads (5.5" X 8.5" each) in BIO Career Fair program book
- 3 additional job postings on the Bio Jobs Job Board
- Signage onsite
- Larger logo promotion on BIO Career Fair page
- Preferential job posting position, which allows prominent placement at top of search results

- Standard \$4,200
 Sign up prior to 3/1/15 to take advantage of early registration price of \$3950
- •10' x 10' recruiting area with company sign, table and 2 chairs
- •5.5" X 8.5" ad in BIO Career Fair program book
- 60-day access to the BIO candidate resume database
- •5 job postings on the Bio Jobs Job Board (a \$1,000 value)
- ·Company name and logo listed on BIO Career Fair website and on

convention.bio.org/careerfair

- Two BIO 2015 Exhibition Access passes
- Featured in BIO 2015 Onsite Guide, distributed to 15,000 Convention attendees
- Featured BIO Career Fair Exhibitor List (as of May 9, 2015)
- Featured in LinkedIn broadcast message to "myBIO Community" (40,000 contacts)

Online — \$2,750

convention.bio.org/careerfair

Become an Exhibitor

Please contact Mark McGuire at m.mcguire@jobtarget.com or by phone at 860.271.7253 ext. 312 to reserve your space today!

Connect with us:

#BIO2015

Produced by:



Biotechnology Industry Organization

1201 Maryland Ave. SW, Ste. 900 Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.

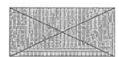
Update your preferences | Unsubscribe

From: Wendy Siminski

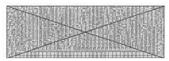
Sent: Thur 4/9/2015 8:24:16 PM

Subject: Join the Largest Industry Recruiting Event—BIO Career Fair, June 18, #BIO2015

Powered by:







Attend the BIO Career Fair

Co-located with the 2015 BIO International Convention, the BIO Career Fair is a mustattend for those seeking career advancement opportunities, professional development resources and access to the industry's top employers.

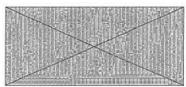
- •Connect with recruiters and circulate your resume among corporate HR staff who are looking to fill positions and expand their talent pool.
- •Explore job opportunities in business development, research, finance, marketing and more.
- •Establish new contacts and network with professionals from all industry segments.

The BIO Career Fair is FREE to attend and signing up is easy at jobs.bio.org—

- Pre-register or bring a hard copy of your resume/CV onsite (resume required for admittance).
- Upload your resume/CV to our Bio Jobs database.
- · Fill out your personal profile for employers to view.

The BIO Career Fair is powered by Bio Jobs, the premiere job board hosted by the industry's largest global trade association, BIO.

Learn more at convention.bio.org/careerfair



Connect with us:

#BIO2015

Produced by:



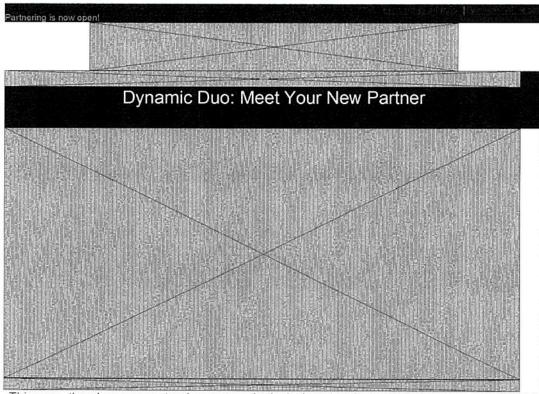
Biotechnology Industry Organization 1201 Maryland Ave. SW, Ste. 900 Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov You were added to the system January 30, 2009. For more information click here.

Update your preferences | Unsubscribe

From: Sougato Das

Sent: Tue 4/7/2015 8:21:19 PM Subject: BIO 2015 Partnering is Open



This year, there's a new partnering system that's designed to dramatically increase your ROI at the BIO International Convention and other BIO events. Welcome to the new One-on-One Partnering ™.



Learn about the top features »

See a preview of the system »



Buzz of BIO

The Buzz of BIO contest recognizes highly innovative companies in the biotech sector and helps position companies to develop strategic partnerships within the industry.

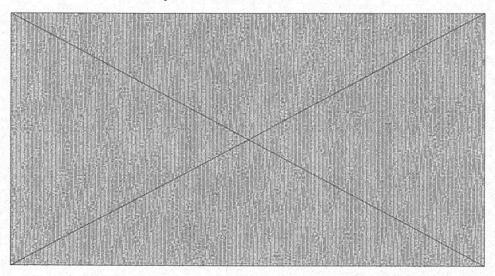
learn more



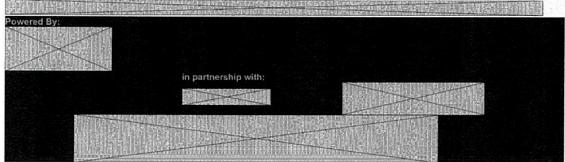
Putting on the Pitch
Learn how to pitch your projects to inlicensors and investors. Get the inside scoop from Pfizer, Sofinnova Ventures, MBC, and Pullan Consulting.

RSVP For APril 8 Webinar

Who can you meet with at the BIO Business Forum?



View all companies »

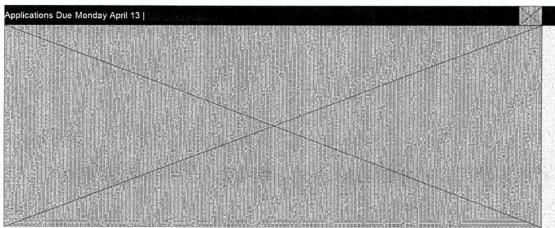


Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov You were added to the system January 30, 2009. For more information

Update your preferences | Unsubscribe

From: Rebecca Hayes Jensen
Sent: Tue 4/7/2015 4:02:12 PM
Subject: BIO GreenTech Investor Sessions



Applications for BIO GreenTech Investor Sessions Now Being Accepted

An elite group of private and early stage emerging industrial biotechnology companies will present their new technologies, accomplishments, value propositions and business cases July 20 during BIO GreenTech Investor Sessions at the BIO World Congress on Industrial Biotechnology.

Plus NEW Startup Award Announced

Sofinnova Partners Renewable Chemistry Start-up Award, which will be presented at the BIO World Congress on Industrial Biotechnology, recognizes the most promising renewable chemistry start-up. The top 5 companies will be selected by popular vote online and the winner will be selected at BIO World Congress on Industrial Biotechnology by an industry jury.

Sponsored by:

Showcase Your Green Technology

Presenting at the BIO GreenTech Investor Sessions gives you corporate visibility in front of potential investors and partners. BIO will accept applications through April 13, 2015.

Innovative industrial biotechnology companies will be selected to participate based on:

Breakthrough green technologies
Bio based consumer product strategies
Extensive intellectual property coverage

Apply to Present

GreenTech Investment Opportunities

BIO GreenTech Investor Sessions create a forum for investors to identify prospective investments with private and early stage industrial biotechnology companies. Innovators focused

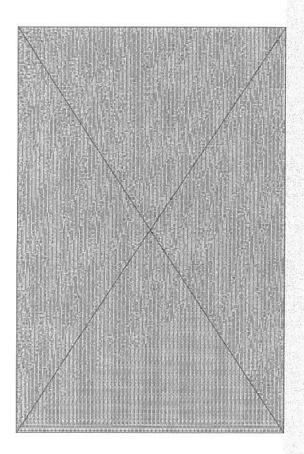
on advanced biofuels, renewable chemical platforms, biobased products, biomass conversion technologies will present their business case and value proposition during 15 minute presentations throughout the day on July 20, 2015. Qualified investors will receive a discounted conference registration, which gives them access to all conference programming. Email Rebecca Hayes Jensen at <u>rhayes@bio.org</u> for more information.

Register New

One-on-

One Partnering™

Globally search companies to source potential collaborations and funding opportunities Communicate directly with prospective investors and senior management Pre-schedule 30-minute meetings to be conducted onsite in a semi-private room provided by BIO



2014 Participating Investors

Bayshore Venture

Berkvens Management & Investment B.V.
Brazilian Development Bank
Capricorn Venture Partners
Chevron Technology Ventures
DSM Ventures
DuPont Ventures
Emerald Technology Ventures
Federated Investors
First Green Partners
Flagship Ventures
Gist Ventures, LLC

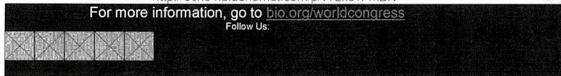
Goldman Sachs
Johnston Associates
Kilpatrick Townsend & Stockton
Malaysian Life Sciences Capital Fund
Mitsui & Co. Global Investment
On-Point Capital, LLC
SEB Venture Capital
Soffinova Partners
Stern Brothers & Co
Sustainable Conversion Ventures
The Trelys Funds
VantagePoint Capital Partners

About the BIO World Congress on Industrial Biotechnology

BIO World Congress on Industrial Biotechnology is the largest international industrial biotech conference annually drawing 1,300 attendees. Entering it's twelfth year, it will take place July 19-22, 2015 in Montréal.

Visit bio.org/worldcongress to view the attending organizations and schedule of events.

http://echo4.bluehornet.com/p/vT2kc1FmBN



Biotechnology Industry Organization | 1201 Maryland Ave., SW, Ste. 900 | Washington, D.C. 20024

This message was intended for: argyropoulos.paul@epamail.epa.gov You were added to the system January 30, 2009. For more information click here.
Update your preferences | Unsubscribe

ED_000313_O365_00001023

Cc: David Cox[david@rngcoalition.com]

To: Jeramy Shays[shays@acore.org]; Rosen, Michael[michael.rosen@airliquide.com]; Patterson,

Ashley[apatterson@ameresco.com]; Jay Hopper[Jay.Hopper@ariaenergy.com]; Chris

Voell[Chris.Voell@ariaenergy.com]; Kate Shenk[kshenk@bio.org]; Carrie Annand,

BPA[carrie@usabiomass.org]; Evan Williams[evan@cambrianenergy.com]; Todd R.

Campbell[tcampbell@cleanenergyfuels.com]; Harrison Clay[hclay@cleanenergyfuels.com]; Saavedra, Paul:(Constellation)[paul.saavedra@constellation.com]; Michael Kotyk[kotykm@dteenergy.com]; Angela

Schwarz[aschwarz@elementmarkets.com]; James Osborn[james.osborn@energypowerpartners.com];

Dan Walsh[dan.walsh@energypowerpartners.com]; Matt Tomich[tomich@energy-vision.org]; Bob

Collie[BCollie@fortistar.com]; Pat Foody[pat.foody@iogen.ca]; Gordon T.

McLennan[Gordon.McLennan@IOGEN.ca]; Ira Dorfman[ihdorfman@gmail.com]; Marcus

Gillette[marcusdgillette@gmail.com]; Bernadette Rappold[brappold@mcguirewoods.com]; Sullivan,

Russell W.[RSullivan@mcguirewoods.com]; Chris Davis[cdavis@montaukenergy.com]; Luke

Morrow[luke@morrowenergy.com]; Justin Kennard[justin@morrowenergy.com]; Paul

Morrow[paul@morrowenergy.com]; Kerkhoven, Paul[pkerkhoven@ngvamerica.org]; Matt

Godlewski[MGodlewski@NGVamerica.org]; Clarke, Jeffficlarke@ngvamerica.org]; Peter

David[peter.david@navigant.com]; Maggie Shober[maggie.shober@navigant.com]; Gordon

Pickering[gpickering@navigant.com]; Martz, Brian[bmartz@republicservices.com];

<thomas.moffett@shell.com>[thomas.moffett@shell.com]; David

McCullough[david.mccullough@sutherland.com]; Lafferty, Susan[Susan.Lafferty@sutherland.com];

Amish Shah[amish.shah@sutherland.com]; <jimbruce@ups.com>[jimbruce@ups.com]; Argyropoulos,

Paul[Argyropoulos.Paul@epa.gov]; Tim Urban[Timothy.Urban@wc.ey.com]; Kelly,

Kerry[KKelly5@wm.com]; cwhite1@wm.com[cwhite1@wm.com]; Pabor, Paul[PPabor@wm.com];

Jameson, Dan[DJameson@republicservices.com]; Torres.

Pete:(Constellation)[Pete.Torres@constellation.com]

From: Johannes Escudero

Sent: Thur 5/14/2015 9:12:43 PM

Subject: Meeting Agenda & Info: 2015 Capitol Hill Advocacy Day & Members Networking Event

(Tuesday, May 19 - Washington, DC)

Agenda - RNGC Capitol Hill Advocacy Day 051915.pdf

ATT00001.htm

PastedGraphic-3.tiff

ATT00002.htm

Environment Logo.jpg

ATT00003.htm

RNG Coalition Members and Friends.

Please find attached the agenda and schedule overview for our Capitol Hill Advocacy Day and Members' Networking Event next Tuesday in Washington, DC.

Included on the agenda is the address for the morning coffee reception, orientation and luncheon. Individual member folders will be provided during the orientation, complete with detailed itineraries that correspond with your respective delegation's scheduled meetings on Capitol Hill.

Information for our mid-year members networking event at Washington Nationals' Ballpark is also included. To those who RSVP for the event, be sure to claim your tickets before the conclusion of our morning orientation. To those who have not yet RSVP'd for the event, we have two tickets remaining for prime seating behind home plate (Nationals vs. Yankees).

Please let David or myself know if you have any questions. On behalf of the RNG Coalition and renewable natural gas industry, thank you again for your leadership, engagement and participation.

We look forward to working the Hill and spending time with each of you next week.



2015 MEMBERS' CAPITOL HILL ADVOCACY DAY

Date: Tuesday, May 19 Time: 10:00 AM EST
Location: 700 Sixth Street NW, Washington DC
Call-in: (877) 211-3621 Meeting Number: 913330#

International Call-in: 1-719-325-2765

ORIENTATION AGENDA & SCHEDULE OVERVIEW

10:00 AM - Arrival & Coffee Reception

10:30 AM - Capitol Hill Day Orientation

- I. Opening Comments & Schedule of Events
- III. Federal Issues / Working Group Updates
- IV. Capitol Hill Meetings
- V. Mid-Year Members' Networking Event
- 11:30 AM Adjourn: Q&A, Final Comments & Acknowledgments

11:45 AM – Luncheon (Hosted by Sutherland)

12:30 PM - Depart for Capitol Hill

1:00 PM – Capitol Hill Meetings

5:30 PM – Mid-Year Members' Networking Event

I. OPENING COMMENTS

On behalf of the balance of the RNG Coalition's membership – those who could not attend – and the RNG industry, thank you for taking time and making it a priority to join us for our annual Capitol Hill Advocacy Day. We are continuing to build industry credibility and valuable relationships with key members of Congress, as well as the US EPA and White House Office of Management and Budget. Thank you again for your leadership, engagement and support.

뀀 $\square\eta$ 1

II. FEDERAL ISSUES / WORKING GROUP UPDATES

WHITE HOUSE EXECUTIVE ORDER:

Greenhouse Gas Emissions: Update by Coalition For Renewable Natural Gas

FEDERAL REGULATION:

RFS2: Update by Paul Argyropoulos, US EPA & RNG Coalition

- Revised Cellulosic Biofuel Production Volumes (2015-16)
- Status of 2014-16 RVO Ruling
- Cellulosic Waiver Credits
- Cellulosic Biofuel Standard Guidance Document

Biogenic Carbon Emissions: Update by Kate Shenk, BIO

FEDERAL LEGISLATION:

RNG: Update by Coalition For Renewable Natural Gas

Natural Gas (CNG / LNG): Update by Paul Kerkhoven, NGVAmerica

Energy Tax Reform: Update by Tim Urban, Washington Counsel Ernst & Young

- Energy Provisions in the President's February FY2016 Budget Proposal
- Senators Hatch & Wyden's Finance Committee Tax Reform Efforts

LEGAL:

Master Limited Partnership (MLP): Update by McGuireWoods LLP

RESOURCES:

- EnergyFactCheck.Org: Update by Jeramy Shays, ACORE
- RNGWorkGroup.com: Update by Coalition For Renewable Natural Gas

CALENDAR: Federal Issues Working Group Meeting: Tuesday, June 9

ଅ ୍ମ

III. CAPITOL HILL MEETINGS (1:00pm - 5:00pm)

It is important that we tailor our narrative in consideration of our audience - the political affiliation, district, philosophy, legislation, voting record of the Elected Official or Staff Member we are meeting with.

Enclosed in your Member's packet is information, including background and talking points relative to our education and advocacy purpose. We have also provided you with an itinerary and logistics for your delegation's meetings today on Capitol Hill. Today, the RNG Coalition has 35 meetings scheduled with:

US SENATE - LEADERSHIP

Majority (Republican):

Assistant Floor Manager

Chair - Policy Committee, Senatorial Campaign Committee, Bipartisan Tax Reform Working Group

Authors - Critical RNG related legislation (S. 934, S. 1026)

Minority (Democrat):

Democratic Leader, Whip, Chief Deputy Whip

SENATE COMMITTEES - CHAIRS, RANKING MEMBERS & STAFF:

Agriculture

Energy & Natural Resources

Environment & Public Works

Finance

US HOUSE of REPRESENTATIVES - LEADERSHIP

Majority (Republican):

Republican Leader, Whip

Minority (Democrat):

Democratic Leader, Whip, Assistant Leader

Co-Chair - Steering & Policy Committee; Appropriations

Authors -

HOUSE COMMITTEES - CHAIRS, RANKING MEMBERS & STAFF:

Appropriations, Energy & Power Subcommittee

Transportation & Infrastructure

뀀□Ŋ 3

IV. MID-YEAR MEMBERS' NETWORKING EVENT (5:30pm - 10:00pm)

VENUE:

Major League Baseball: Washington Nationals vs. New York Yankees

LOCATION:

Washington Nationals' Ballpark 1500 South Capital Street, SE Washington, DC 20003

ARRIVAL TIME & LOGISTICS: Transportation, Parking, Seating

ACCOMMODATIONS: Food & Drinks Included

ACKNOWLEDGMENTS:

We would like to thank Sutherland (Susan Lafferty and David McCullough) for their continued hospitality in hosting the RNG Coalition's Federal Issues Working Group meetings every month, and for hosting our coffee reception and luncheon today.

Thank you to IOGEN (Pat Foody and Gordon McLennan) for co-sponsoring our Mid-year Members' Networking Event at Nationals Ballpark. We look forward to connecting with each of you after a full and productive day on Capitol Hill.

CONTACT INFORMATION:

Should you have any questions or otherwise have a need the RNG Coalition can assist you with, please contact your Executive Staff (contact below):

Johannes Escudero: 916.520.4764 or Johannes@RNGCoalition.com

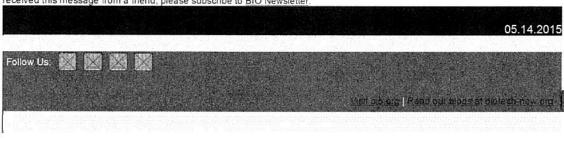
David Cox: 909.649.4180 or David@RNGCoalition.com

11:30 AM – Final Comments & Adjournment

On behalf of the RNG Coalition and renewable natural gas industry, thank you for your engagement and participation in our 2015 Capitol Hill Advocacy Day. 필미 To: Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]
From: BIO - Biotechnology Industry Organization

Sent: Thur 5/14/2015 7:24:16 PM **Subject:** BIO Newsletter: May 14, 2015

Add bio_newsletter@bio.org to your contacts to ensure email delivery. Not displaying correctly? View this email in a browser. If you received this message from a friend, please subscribe to BIO Newsletter.



BIO INTERNATIONAL CONVENTION

BIO 2015 to Feature Expanded Innovation Zone with NIH and NSF Small Business Innovation Research Companies

BIO the National Science Foundation and the National Institutes of Health announced an agreement to feature Small Business Innovation Research funded early-stage biomedical companies in an expanded Innovation Zone at the 2015 BIO International Convention...

Share:

BUSINESS OF BIOTECH

FOX Business: BIO CEO Jim Greenwood Discusses State of the Industry

BIO President and CEO Jim
Greenwood recently appeared on Fox
Business Risk & Reward with Deirdre
Bolton to discuss the current state of
the industry...
Share:

FOOD AND AGRICULTURE

European Union Lags Well Behind the U.S. in Innovation

The European Commission's own
"Innovation Scorecard" shows that on

almost every measure of innovation, the European Union lags well behind the U.S. and on some measures now lags parts of Asia...
Share:

2015 BIO WORLD CONGRESS

<u>LanzaTech CEO Holmgren Selected to receive the 2015 BIO</u> Rosalind Franklin Award

Dr. Jennifer Holmgren, Chief Executive Officer of the innovative carbon recycling company LanzaTech, has been selected by a committee of her peers to be the recipient of the 2015 BIO Rosalind Franklin Award...

Share:

BUSINESS AND INVESTMENTS

<u>Tick Size Pilot Program: A Few Pennies Make a Big</u> Difference

Earlier this week, the Securities and Exchange Commission approved a tick size pilot program that will begin next year...

Share: HEALTH

Jim Greenwood in New York Times: Specialty Tiers Limit Patient Access

The New York Times published a letter from Jim Greenwood, BIO's President and CEO...

Share:

2015 BIO WORLD CONGRESS

Industrial Biotechnology Journal Becomes the Official Publication for the BIO World Congress

BIO announced that the Industrial Biotechnology (Mary Ann Liebert, Inc., publishers)
Journal will become the official publication for the BIO World Congress on Industrial
Biotechnology...
Share:

GMOS

Was the Sweet Potato a Natural GMO?

NPR recently reported that the first genetically modified crop wasn't made by a megacorporation or a college scientist...

Share: Sh

BIO BizLink Approaches Milestone as Convention Approache

In less than a year's time, BIO BizLink, BIO's peer-rated CRO/CMO database and project management tool, has attracted nearly 1,000 companies... Share:

HEALTH

Tuberous Sclerosis Complex Global Awareness Day

On May 15, the Tuberous Sclerosis Alliance will join tuberous sclerosis complex organizations around the world...
Share:

TO DESCRIPTION OF THE PROPERTY.

06.15.15

2015 BIO International Convention

Join 15,000 global attendees at BIO 2015, June 15 - 18, 2015 in Philadelphia, PA for more than 29,000 one-on-one partnering meetings in 3 days. BIO's new One-on-One Partnering™ system will dramatically increase your ROI at the **BIO International Convention and across** all BIO partnering events. Combined with Inova's One-on-One Partnering™ Plus, the system will reduce your team's overall business development costs and will increase your partnering effectiveness year-round...

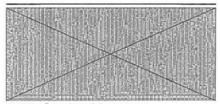
LEARN MORE

07.19.15

World Congress on Industrial Biotechnology

The BIO World Congress on Industrial Biotechnology is the world's largest industrial biotechnology event for business leaders, investors, and policy makers in biofuels, biobased products, and renewable chemicals...

REGISTER



NMR Senior Manager, Beryllium

Selnt Moouriseis Patent tates Biology, Amgen

South San Francisco, California, United States
April 17, 2015

Senior Product Manger, Upstream, Abbott, Inc

Menlo Park, California, United States May 12, 2015

Sr Manager DC Supply Chain NA, BAYER

Whippany, New Jersey, United States May 12, 2015

Account Executive, Healthcare and Life Sciences, Dell, Inc.

San Francisco, California, United States May 11, 2015

POST A BIOTECHNOLOGY JOB >



© 2015 Biotechnology Industry Organization. All rights reserved.

This message was intended for: argyropoulos.paul@epamail.epa.gov You were added to the system January 30, 2009. For more information click here.
Update your preferences | Unsubscribe

From: Brent Erickson

Sent: Thur 5/7/2015 5:08:30 PM

Subject: Special Announcement: Dr. Jennifer Holmgren to Receive the 2015 BIO Rosalind Franklin

Award

Dear Paul,

It is with great pleasure we are announcing that **Dr. Jennifer Holmgren will be the recipient of the 2015 BIO Rosalind Franklin Award for Leadership in Industrial Biotechnology at the BIO World Congress on Industrial Biotechnology, which will take place July 19-22 in Montreal, Canada.** Dr. Holmgren's work and commitment to the advancement of her field of industrial biotechnology embodies the spirit of Rosalind Franklin and her pioneering efforts.

Dr. Jennifer Holmgren

This award was created to help carry on the legacy of Rosalind Franklin who not only aided in the expansion of biotechnology, but also helped pave the way for women in this field. Rosalind Franklin was instrumental in the discovery and our greater understanding of the molecular structure of DNA. Through Rosalind Franklin's use of X-ray diffraction images, the true double helix structure of DNA was discovered. With the aid of Franklin's images and writings, Francis Crick and James Watson were able to release their 1953 model of the structure of DNA.

More than fifteen female leaders in industrial biotechnology were nominated for the award. Dr. Holmgren's accomplishments and dedication stood out to the Rosalind Franklin Award Selection Committee, who selected her as the inaugural recipient.

Dr. Holmgren is CEO of a revolutionary carbon recycling company, LanzaTech. Under her leadership, LanzaTech is developing the world's first alternative jet fuel from industrial waste gases using intermediates derived through industrial biotechnology. LanzaTech's technology, certified by the Roundtable on Sustainable Biomaterials (RSB) in 2013, is ready to deploy globally today, with a 30 million gallon nameplate facility targeted for construction in China in 2015, producing fuel ethanol from steel mill off gases.

Dr. Holmgren's team has defined the genetic blueprint of gas fermenting organisms and demonstrated in the laboratory that they can be engineered to produce a range of novel, commercially valuable molecules. LanzaTech's work is a cornerstone for the development of an entire industry that uses gas fermentation to convert a variety of wastes or low value resources into a diverse spectrum of low carbon fuels and chemicals.

Prior to joining LanzaTech, Dr. Holmgren was Vice President and General Manager of the Renewable Energy and Chemicals business unit at UOP LLC, a Honeywell Company. She was one of the key drivers of UOP's leadership in aviation biofuels, and under her management, UOP technology became instrumental in producing nearly all of the initial fuels used by commercial airlines for testing and certification of alternative aviation fuel for passenger flights. These test flights brought tremendous visibility to the potential of renewable aviation fuel and the role of biotechnology in feedstock development.

Dr. Holmgren holds a Bachelor of Science degree from Harvey Mudd College, a Doctor of Philosophy from the University of Illinois at Urbana-Champaign and a Master of Business Administration from the University of Chicago. She is the author or co-author of 50 US patents and 20 scientific publications and was named as one of the top 10 most influential leaders in the Biofuels Industry by Biofuels Digest for 2013-2014.

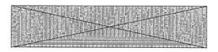
With the support of the Rosalind Franklin Society—the award sponsor—BIO will present Dr. Holmgren with the BIO Rosalind Franklin Award. The Rosalind Franklin Society is an honorific, interdisciplinary, and international society which recognizes, fosters, and advances the important contributions of women in the life sciences and affiliated disciplines. In so doing, the Society honors the under-recognized achievements of the late Rosalind Franklin (1920-1958). To

celebrate the life, work, and symbolic power of this remarkable heroine in science, the Society recognizes the work of outstanding women scientists, fosters greater opportunities for women in the sciences, and motivates and educates by examples young generations of women who have this calling.

During this conference, BIO will also hold a <u>Women in Industrial Biotechnology Reception which is schedule to take place on July 19 at 4:30 pm.</u> This reception is only accessible to attendees of the BIO World Congress and has a limited number of spots available on a first-come, first-served basis. Email rhayes@bio.org to reserve your spot today.

I encourage you to join me in congratulating Dr. Holmgren for her contributions, dedication and commitment to the advancement of the industrial biotechnology field.

Regards,



Brent Erickson
Executive Vice President
Industrial and Environmental Section
Biotechnology Industry Organization
www.BIO.org/ind
Follow me on Twitter (@BErickson_BIO)

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.
Update your preferences | Unsubscribe

From: Steve Schiraldi

Sent: Thur 5/7/2015 2:05:01 PM

Subject: BIO BizLink Growing Rapidly as Convention Approaches!



World Class CROs and CMOs, Just a Few Clicks Away!

Since last year's launch, BIO BizLink's network has grown to nearly 1,000 companies looking to connect in the pre-clinical and clinical contract research space! With the 2015 BIO International Convention in Philadelphia rapidly approaching, we have recently made some exciting updates to optimize BizLink in preparation for the event:

- Improved search functionality
- Simplified user experience
- "Getting Started Guides" to assist your outsourcing needs!

Visit BIO BizLink today to explore our high-quality network of Contract Research Organizations (CROs), Contract Manufacturing Organizations (CMOs), and Regulatory Consultants both quickly and efficiently.



Come see us at Convention in Philadelphia!

BIO BizLink was developed and launched as a cooperative effort among BIO, its State and Regional Affiliates, and OnDeckBiotech.

biobizlink.com

This message was intended for: argyropoulos.paul@epamail.epa.gov
You were added to the system January 30, 2009. For more information click here.
Update your preferences | Unsubscribe

ED_000313_O365_00001033

From: Brian Jennings

Sent: Wed 4/29/2015 3:34:13 PM

Subject: RE: is comment period open on Consent Decree re: RFS timelines? thanks.

Thanks.

BRIAN JENNINGS

Executive Vice President

AMERICAN COALITION for ETHANOL

605-941-1314 cell

ethanol.org



Meet the people who have forged the most successful renewable energy platform in the world



LEGAL NOTICE: Unless stated otherwise, this message is considered confidential and may be privileged. It is intended for the addressee(s) only. Access to this e-mail by anyone else is unauthorized.

From: Argyropoulos, Paul [mailto:Argyropoulos.Paul@epa.gov]

Sent: Wednesday, April 29, 2015 10:32 AM

To: Brian Jennings

Subject: RE: is comment period open on Consent Decree re: RFS timelines? thanks.

Yes.

Written comments on the proposed consent decree must be received by May 20, 2015

 $\underline{https://www.federalregister.gov/articles/2015/04/20/2015-09012/proposed-consent-decree-clean-air-act-citizen-suit}$

Paul Argyropoulos

Senior Policy Advisor

US EPA

Office of Transportation and Air Quality

Phone: 202-564-1123

Mobile: 202-577-9354

Email: argyropoulos.paul@epa.gov

Web: www.epa.gov

From: Brian Jennings [mailto:bjennings@ethanol.org]

Sent: Wednesday, April 29, 2015 11:27 AM

To: Argyropoulos, Paul

Subject: is comment period open on Consent Decree re: RFS timelines? thanks.

BRIAN JENNINGS

Executive Vice President

AMERICAN COALITION for ETHANOL

605-941-1314 cell

ethanol.org



Meet the people who have forged the most successful renewable energy platform in the world



LEGAL NOTICE: Unless stated otherwise, this message is considered confidential and may be privileged. It is intended for the addressee(s) only. Access to this e-mail by anyone else is unauthorized.

From: Brian Jennings

Sent: Wed 4/29/2015 3:26:34 PM

Subject: is comment period open on Consent Decree re: RFS timelines? thanks.

removed.txt

BRIAN JENNINGS

Executive Vice President

AMERICAN COALITION for ETHANOL

605-941-1314 cell

ethanol.org

@BiofuelBrian

Meet the people who have forged the most successful renewable energy platform in the world



LEGAL NOTICE: Unless stated otherwise, this message is considered confidential and may be privileged. It is intended for the addressee(s) only. Access to this e-mail by anyone else is unauthorized.

From: Ernie Shea Sent: Sat 4/25/2015 6:18:26 PM Subject: RE: Enjoyed our Conversations 25x'25 Parters F Factor Sign On Letter.pdf Paul-Sorry for the delay in responding. I was on the road all week and am just now catching up. I enjoyed our conversation as well- especially the part about leading a more balanced life (something that I am failing at miserably this week!) Attached is the letter that I referenced. No need to respond. Just wanted to make sure you had a copy. Enjoy the rest of your weekend. Emie **Ernie Shea** 25x'25 Project Coordinator 1430 Front Avenue Lutherville, MD. 21093 eshea@25x25.org www.25x25.org

Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]

25x'25 America's Energy Future

Join us on Facebook!

410-252-7079 (p) 410-952-0123 (c) 410-616-9264 (f)

To:

Follow us on Twitter!

From: Argyropoulos, Paul [mailto:Argyropoulos.Paul@epa.gov]

Sent: Monday, April 20, 2015 9:18 AM

To: eshea@25x25.org

Subject: Enjoyed our Conversations

Ernie,

Just wanted to say I enjoyed our conversations last week. I hope you had a safe trip home. I'm sure we'll be crossing paths again soon.

Regards, Paul

Paul Argyropoulos

Senior Policy Advisor

US EPA

Office of Transportation and Air Quality

Phone: 202-564-1123

Mobile: 202-577-9354

Email: argyropoulos.paul@epa.gov

Web: www.epa.gov

Mr. Christopher Grundler USEPA Headquarters William Jefferson Clinton Building 1200 Pennsylvania Avenue NW Washington, DC 20460

Dear Mr. Grundler:

The undersigned agricultural, conservation, environmental, public health, alternative fuel and bioenergy value chain partners are writing to endorse Volkswagen of America's recent request for EPA to issue the enclosed Proposed Guidance Letter concerning the E85 weighting factor ("F factor") for model year 2016-2025 dual fuel vehicles. This guidance is critical to incentivize the continued production of flex fuel vehicles (FFVs) and to support the further advancement and deployment of biofuels into the nation's liquid transportation fuel pool; fuels which are essential to reducing greenhouse gas (GHG) emissions and enhancing air quality.

Automobile manufacturers offer a diverse portfolio of vehicle technologies that operate on alternative transportation fuels. A diverse portfolio of vehicle technologies creates customer value by enabling consumers to choose the best package that fits their needs. Fuel choice among gasoline, diesel, ethanol, electricity, and natural gas is one important option considered by a consumer. Providing enhanced incentives for FFVs would create parity with other alternative fuel vehicles and level the playing field for the sale of FFVs. It is therefore crucial that EPA provide the regulatory framework that encourages the continual introduction and expansion of FFVs as part of the overall advanced fuel vehicle technologies portfolio. FFVs will support the consumption of alternative transportation fuels in the marketplace and provide immediate GHG benefits. Without additional regulatory incentives to manufacture FFVs, automobile manufacturers may focus on other alternative vehicle technologies as a means to comply with the challenging 2017-2025 GHG and CAFE standards, resulting in fewer FFVs in the marketplace.

Furthermore, continuing to incentivize the production of FFVs helps facilitate successful implementation of the Renewable Fuel Standard (RFS) program. Increased use of E85 and midlevel blends in FFVs offers a readily available pathway for regulated entities to help meet the goals of the RFS.

Today, over 17 million FFVs operate on American roadways. The use of E85 and midlevel ethanol blends in FFVs represents the most cost-effective and efficient way to help meet the ambitious new federal standards for reducing petroleum use and tailpipe emissions. Ethanol and other advanced biofuels facilitate CO₂ emission reductions both within the vehicle, and, more importantly, throughout their production life cycle. But for these benefits to be realized, FFVs must continue to be built. Without the F factor requested by Volkswagen of America, the future of FFVs is at great risk.

While there are multiple economic, national security and environmental reasons for continuing to provide meaningful federal incentives to help facilitate the continued production of FFVs, one of the most compelling is the GHG emission reduction benefits they produce when vehicles are

fueled with biofuels. Recent GREET analyses estimate that corn ethanol life-cycle greenhouse gas emissions are 19-48% (mean=34%) lower than conventional gasoline. At the current 10% ethanol-gasoline blend level the 34% carbon intensity (CI) reduction per gallon results in greenhouse gas savings from corn ethanol alone of approximately 35 million metric tonnes in 2012 or 2% of transportation related emissions.

In addition the latest version of GREET shows a 100% reduction in GHG emissions for forest residue to ethanol. Forest residue collection is part of sustainable forest management for wildfire protection and thinning of commercial forests. Thus the use of this feedstock results in no indirect land use and promotes the growth of forest material with increased CO2 sequestration.

Going forward, research performed by the Life Cycle Associates (LCA) has shown that emerging co-products such as corn stover used as animal feed and cellulosic ethanol from corn stover and corn kernel fiber will further reduce the CI of corn ethanol. Treating corn stover as a co-product to corn production and assuming blending requirements set by the Renewable Fuel Standard for corn and cellulosic ethanol, LCA has shown that the combined CI of corn-based biofuels will approach 39 gCO₂e/MJ by 2022. This is a 60 percent reduction from average U.S. petroleum transportation fuels. For comparison purposes, advanced biofuels require a 50% reduction in CI from the EPA Petroleum Baseline and cellulosic ethanol requires a 60% reduction in order to obtain the respective designation.

We urge EPA to issue the F factor guidance letter proposed by Volkswagen of America. Doing so will allow for expanded use of lower carbon intensive biofuels and will represent an important and helpful first step towards resolving the lack of parity in federal incentives for FFVs and other alternative-fueled vehicles.

Thank you for considering our request.

Respectfully submitted,

25x'25 Alliance Advanced Biofuels USA Agricultural Retailers Association American Coalition for Ethanol American Council on Renewable Energy American Farm Bureau Federation American Seed Trade Association Association of Equipment Manufacturers Chicago Area Clean Cities Clean Fuels Development Coalition Clean Fuels Foundation Clean Fuels Ohio CoBank Colorado Corn CropLife America East Tennessee Clean Fuels Coalition

Eastern Pennsylvania Alliance for Clean Transportation Environment and Energy Study Institute Ethanol Across America FlexFuel Awareness Campaign Genera Energy Genesee Region Clean Communities, Inc. Greater Indiana Clean Cities Coalition ICM. Inc Illinois Corn Growers Association Illinois Renewable Fuels Association Iowa Corn Growers Association Iowa Renewable Fuels Association Kansas Corn Growers Association Kentucky Corn Growers Las Vegas Regional Clean Cities Coalition

Maryland Grain Producers Association Minnesota Clean Cities Minnesota Corn Growers Association Missouri Corn Growers Association National Association of Conservation Districts National Corn Growers Association National Farmers Union Natural Resource Solutions NC Clean Energy Technology Center Nebraska Clean Cities Coalition Nebraska Corn Board

Nebraska Ethanol Board Nebraska Ethanol Industry Coalition

Nebraska Farmers Union North Dakota Clean Cities Northeast Ohio Clean Transportation Coalition Ohio Corn & Wheat Growers Association

Renew the Earth Sapp Brothers Petroleum Schmitt Industries South Carolina Clean Energy Business

Alliance Transportation Fuels Consulting Urban Air Initiative Virginia Clean Cities

cc: EPA Administrator Gina McCarthy

Enclosures

- October 7, 2014 Volkswagen of America letter to EPA

- Volkswagen of America's proposed F factor guidance letter

According to the Department of Energy (2014): "...there are more than 17.4 million FFVs on U.S. roads today." (http://www.afdc.energy.gov/vehicles/flexible_fuel.html)

Wang, M., et al (2012) Well-to-wheels energy use and greenhouse gas emissions of ethanol from corn, sugarcane and cellulosic biomass for US use. Environ. Res. Lett. 7 045905

EIA reports 2012 gasoline consumption at 134 billion gallons and EPA reports 2012 total transportation related emissions at 1,827 million metric tons (http://www.epa.gov/climatechange/ghgemissions/sources.html)

V Stefan Unnasch, Life Cycle Associates, analysis performed with GREET V. 2014.

^v Boland. S. and Unnasch. S. (2014) Carbon Intensity of Marginal Petroleum and Corn Ethanol Fuels. Life Cycle Associates Report LCA.6075.83.2014, Prepared for Renewable Fuels Association.

⁽http://ethanolrfa.org/page/-/rfa-association-site/studies/LCA_Marginal_GHG_Emissions_2014.pdf?nocdn=1)